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TRINITY RIVER BRIDGES PROJECT

Environmental Assessment/Draft Environmental Impact Report

Volume 1

Draft FONSI / Executive Summary

May 5, 2003

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TRINITY RIVER BRIDGES PROJECT

Environmental Assessment/Draft Environmental Impact Report

Volume 1 of 4

Draft FONSI / Executive Summary

Project Applicant and Federal Lead Agency For NEPA
Trinity River Restoration Program
U.S. Department of the Interior – Bureau of Reclamation
P.O. Box 1300
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Weaverville, CA 96093

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May 5, 2003

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Trinity River Bridges Project

Environmental Assessment / Draft Environmental Impact Report

Due to the magnitude and complexity of this Environmental Assessment / Draft Environmental Impact Report for the Trinity River Bridges Project, this document is provided in four (4) volume. The contents of each volume is summarized below.

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Draft FONSI
Executive Summary

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Trinity River Restoration Program

P.O. Box 1300, 1313 South Main Street, Weaverville, California 96093
Telephone: 530-623-1800, Fax: 530-623-5944

APR. 29 2003

NC-153
ENV-6.00

RE: Draft Environmental Assessment/Draft Environmental Impact Report for the Trinity River Bridges Project

To Interested Parties:

Working together under guidance of the Trinity River Restoration Program, the federal lead agencies, (Bureau of Reclamation and Bureau of Land Management), and state lead agency, Trinity County, announce the publication and distribution of a Draft Environmental Assessment/Draft Environmental Impact Report (Draft EA/EIR) which fully discloses and evaluates the environmental impacts associated with implementation of the proposed Trinity River Bridges Project. This joint environmental document meets California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements and fulfills evaluation needs stipulated under Executive Orders 11988 (floodplain management), 11990 (protection of wetlands), and 12898 (environmental justice).

The purpose of the proposed Trinity River Bridges Project is to modify or replace, as necessary, the existing Salt Flat, Bucktail, Poker Bar, and Biggers Road bridges across the Trinity River in order to accommodate possible future operational changes to the Trinity River Division of the Central Valley Project. This action stems from the need to provide safe and reasonable year-round access to the parcels of land served by the bridges and to allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River. This project is identified in the Interior Secretary's December 19, 2000 Record of Decision (ROD) as a necessary step towards restoration of the Trinity River's fisheries and will allow for high efficiency sediment transport, to restore coldwater fishery beneficial uses and eventually remove the Trinity River from the California Clean Water Act Section 303(d) Impaired Waterbodies List.

The Draft EA/EIR document is provided in several volumes which include the Executive Summary; Draft EA/EIR, and Appendices (on CD). Within the Draft EA/EIR portion, project descriptions are provided in chapter 2 and potential environmental impacts are disclosed in chapter 3. A 45-day public review period has been established for review of the Draft EA/EIR. The review period begins on May 5, 2003, and ends June 19, 2003. Electronic copies of the Draft EA/EIR are available for public review on the Trinity County website at www.trinitycounty.org or on the Bureau of Reclamation's Mid-Pacific website at www.mp.usbr.gov/nepa/. Hard copies of the document are available at the Trinity County

Planning Department at 190 Glen Road in Weaverville, the Trinity River Restoration Program Office at 1313 South Main Street in Weaverville, and at Trinity County Libraries in Hayfork, Weaverville, and Trinity Center. All referenced materials will be available at the Trinity River Restoration Program office. Electronic CD copies of the Draft EA/EIR, and a limited number of paper copies, may be obtained at the Trinity County Planning Department and the Trinity River Restoration Program Office free of charge (subject to availability).

The Trinity County Planning Commission will hold a public workshop on May 8, 2003 starting at 7:00 p.m. at the Trinity County Board of Supervisors Meeting Room, Trinity County Library, 211 Main Street, Weaverville. The Draft EA/EIR may also be on the Planning Commission's agenda at their monthly meeting on June 12. Questions and comments on the Draft EA/EIR will be responded to as appropriate and responses will be used when the Planning Commission makes recommendations to the Trinity County Board of Supervisors regarding certification of the EIR at their Planning Commission meeting on July 10, 2003 (at the same time and location). A proposed Final EA/EIR, which will be used by federal and state agencies to determine their final action plans, is planned for publication around July 10th 2003. The Board of Supervisors will take final action on certification of the EIR at their regular meeting on July 15, 2003. The Bureau of Reclamation and the Bureau of Land Management may adopt a Finding of No Significant Impact (FONSI) for the proposed project shortly thereafter. A Draft FONSI is attached to this cover letter. However, a final determination will not be made until after the public review process is completed. Written comments must be received by the Trinity River Restoration Program, P.O. Box 1300, Weaverville, CA 96093, **no later than 5:00 p.m., Monday, June 19, 2003.**

For California law purposes, if the action or proposed action is challenged in court, issues raised may be limited to only those issues raised at the public hearings described in this notice, or in written correspondence delivered to the Trinity River Restoration Program, Planning Commission, and/or Board of Supervisors at, or prior to the public hearings. Comments delivered to the Trinity River Restoration Program at the above address during the comment period shall be delivered to the Planning Commission for its July 10, 2003 hearing.

Sincerely,

John Jelicich
Planning Director
Trinity County Planning Dept.
CEQA - Lead Agency

Douglas Schleusner
Executive Director
Trinity River Restoration Program
NEPA - Lead Agency

Chuck Schultz
Field Office Manager
Redding, BLM
NEPA Co-Lead Agency

Attachment: Draft FONSI

If you would like a copy of the final EA/EIR, Please detach and mail the following piece to the Trinity River Restoration Program, PO Box 1300, Weaverville, CA 96093

I would like a copy of the Final Bridges EA/EIR in the following format:

☐ Trinity River Bridges Project: EA/EIR Executive Summary (50 pages and Document CD)
☐ Trinity River Bridges Project EA/EIR (approximately 1000 pages)
☐ Trinity River Bridges Project EA/EIR (CD of entire document).

Name _____
Address _____
City, State, Zip Code _____

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION
MID-PACIFIC REGION
NORTHERN CALIFORNIA AREA
WEAVERVILLE, CALIFORNIA

And

BUREAU OF LAND MANAGEMENT
REDDING FIELD OFFICE
REDDING, CALIFORNIA

DRAFT FINDING OF NO SIGNIFICANT IMPACT

FOR COMPLETION OF THE TRINITY RIVER BRIDGES PROJECT, TO MODIFY OR REPLACE, AS NECESSARY, THE EXISTING SALT FLAT, BUCKTAIL, POKER BAR, AND BIGGERS ROAD BRIDGES ACROSS THE TRINITY RIVER

TRINITY RIVER RESTORATION PROGRAM, WEAVERVILLE, CALIFORNIA

Written By : _____ Date: _____
Reclamation Environmental Specialist

Recommended: _____ Date: _____
Implementation Branch Chief

Approved: _____ Date: _____
Executive Director
FONSI No. TR0103

BUREAU OF LAND MANAGEMENT, REDDING FIELD OFFICE

Recommended: _____ Date: _____
BLM Environmental Coordinator

Approved: _____ Date: _____
Field Office Manager

FONSI No. CA-360-RE-2003- XX

FINDING OF NO SIGNIFICANT IMPACT FOR COMPLETION OF THE TRINITY RIVER BRIDGES PROJECT, TO MODIFY OR REPLACE, AS NECESSARY, THE EXISTING SALT FLAT, BUCKTAIL, POKER BAR, AND BIGGERS ROAD BRIDGES ACROSS THE TRINITY RIVER

In accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, and with the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), the Mid-Pacific Region of the Bureau of Reclamation (Reclamation) and the Bureau of Land Management Redding Field Office (BLM) have found that the proposed action and alternatives (described in the attached Trinity River Bridges Project Environmental Assessment/Environmental Impact Report (EA/EIR)) will result in no significant impacts on the human environment. Preparation of an Environmental Impact Statement to further analyze possible impacts is not required pursuant to Section 102(2) of the National Environmental Policy Act of 1969.

BACKGROUND

The Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement / Environmental Impact Report (FEIS/EIR) (2000) identified four bridges that were susceptible to impacts associated with peak fishery flow releases, the Salt Flat, Bucktail, Poker Bar, and Biggers Road bridges. Adverse impacts to these bridges by flood flows, including overtopping, flooded approaches and scouring, have occurred as recently as 1997, when these bridges and/or their approaches were rendered inaccessible by flood flows that severely limited residential and commercial use of these facilities for several days. The Trinity River Bridges Project Environmental Assessment/Environmental Impact Report (EA/EIR) addresses the environmental issues, of the proposed action and their alternatives, and impacts associated with modification and/or replacement of these four bridges on the Trinity River, below Lewiston Dam (Project). Reclamation, the BLM, and Trinity County (County) prepared this EA/EIR. Reclamation will be responsible for construction of the proposed project and will function as the federal lead agency under NEPA. BLM will serve as a federal co-lead agency since it administers the Wild and Scenic Rivers Act for this reach of the Trinity River and because it will have approval authority for project activities on public lands at the Salt Flat and Bucktail sites. Trinity County will be providing funds made available through the California Department of Fish and Game's (CDFG) Coastal Salmon Recovery Program for construction of the Salt Flat and Biggers Road bridges

The need for the proposed action results from:

- The existing high likelihood of flooding (pre-Trinity ROD) of the four bridges and/or their access roads with potential loss of property and lives (as exemplified during the 1997 New Year's Day Flood).

- The current limitation on the operation of Trinity Dam during periods of high inflows, which limits safety of dam water releases to the Trinity River via Lewiston Dam to 6,000 cubic feet per second (cfs) when the actual release capacity of the Trinity Dam is 13,750 cfs.

- Requirements in the Secretary of Interior's December 19, 2000, Trinity River ROD to restore the Trinity River fishery through a combination of higher releases from Lewiston Dam (up to 11,000 cfs), floodplain infrastructure improvements, channel rehabilitation

projects, fine and coarse sediment management, watershed restoration, and an Adaptive Environmental Assessment and Management Program.

- The directive of the United States District Court of the Eastern District of California, in Westlands Water District, et al., v. U.S. Department of the Interior, et al. (Civil Action CIV – F – 00-7124-OWW/DLB) (E.D. Cal.) requiring that "[a]ll non-flow measures prescribed by the ROD shall proceed" while the Department of Interior prepares a SEIS to remedy the defects in the original EIS prepared for the December 19, 2000, ROD.

At each bridge site a minimum of three alternatives were considered, the Proposed Action, No-Action, and one alternative. Under NEPA, no significant impacts were determined under any of these scenarios. Details concerning the Proposed Action and Alternatives considered but not selected are included within the EA/EIR. A brief summary of the Proposed Actions and their impacts is included below and in the Executive summary of the EA/EIR

PROPOSED ACTIONS

Salt Flat: The proposed action bridge at Salt Flat will be constructed approximately four to 44 feet downstream (centerline to centerline) of the existing left and right bridge abutments, respectively. The bridge will be constructed on private property, and will be owned collectively by the Salt Flat property owners. The bridge type is a two-span prefabricated steel truss with reinforced concrete deck. The bridge will be approximately 280 feet long (two 140-foot spans), with an 18-foot clear roadway width, designed to carry HS20 loading. The superstructure and guardrail will be fabricated with weathering steel. The proposed action requires raising the left road approach approximately four feet to provide sufficient hydraulic freeboard over the river.

Bucktail: The proposed action for the Bucktail Bridge consists of raising the west approach roadway and replacing the existing 30-inch diameter culvert with a 9-foot wide by 4-foot high arch structure. The arch culvert design will include a natural "bottom" and will increase the conveyance of flows under the Browns Mountain Road embankment. The design also includes raising the Browns Mountain roadway profile approximately 4.5 feet. The proposed roadway embankment and culvert will exhibit hydraulic characteristics similar to the existing system but will be overtopped only during extreme high flows greater than the 100 year event

Poker Bar: The proposed Poker Bar bridges will be constructed approximately 33 feet upstream and parallel to the existing bridges. The bridges will remain on private property, and upon completion of construction will be the property of the Poker Bar Property Owners Association – East. The proposed bridge types are single span prefabricated steel trusses with reinforced concrete decks. The portion of road between the two bridges and the approaches will have a 20-foot clear roadway width and will be paved with asphalt concrete.

Biggers Road: The proposed Biggers Road Bridge will be constructed approximately 137 feet upstream of and parallel to the existing bridge. The bridge will remain on private property and will be owned collectively by homeowners of the "Treadwell Subdivision". The proposed bridge type is a two-span prefabricated steel truss with reinforced concrete deck. The proposed bridge will be designed for overtopping on the left (east) side, near the intersection of the bridge and Steel Bridge Road. A turnout area will be provided near the south end of the left abutment, parallel to Steel Bridge Road, to allow vehicles to enter and exit

More detailed project descriptions are included in chapter 2 of the Trinity River Bridges EA/EIR and in the "Description of Proposed Actions and Project Alternatives" section of the Executive Summary.

FINDINGS

The effect of the Proposed Action and Alternatives were evaluated in the EA/EIR with respect to their impacts in the following issue areas: land use; geomorphic environment; water resources; water quality; fishery resources; vegetation, wildlife, and wetlands; recreation; socioeconomics, population, and housing; tribal trust; cultural resources; air quality; environmental justice; aesthetics; hazardous and hazardous materials; noise; pubic services and utilities/energy; and transportation /traffic circulation. Based upon the following summary of "Proposed Action" implementation effects (as discussed fully in the EA/EIR), accomplishment of the Proposed Action - at each bridge site, would result in no significant impacts to the quality of the human environment. Mitigation measures at each bridge site are detailed in the EA/EIR.

Land Use

Salt Flat: Land use impacts resulting from the Proposed Action are limited to the relocation of a well located near the western (right) abutment and the potential need to relocate a portion of the service lines along Salt Flat Road.

Bucktail: Increasing the elevation of the western road approach under the Proposed Action would result in the loss of unimproved parking used by the public to access the river. An alternative parking area will be designed to replace this loss of unofficial parking by utilizing adjacent BLM lands or new road shoulders.

Geology, Fluvial Geomorphology, and Soils

Construction activities and disturbance would increase the potential for wind and water erosion, particularly if any soils were left exposed during the later winter and early spring periods of high precipitation. Erosion and sediment control measures will be implemented for all action alternatives. Implementation of the proposed action at each site is consistent with the ten Trinity River healthy river attributes which are supported for implementation by the Trinity River Restoration Program.

Water Resources

The existing bridges at Salt Flat, Bucktail, Poker Bar, and Biggers Road all currently obstruct Trinity River flood flows due to: (1) the constructed piers and abutments located within the flood channel; (2) the reforming of the upstream channel during construction to accommodate approach roads and improve bridge hydraulics, and; (3) in some cases the superstructure itself blocking flows which are too high to pass beneath the bridge unobstructed. Implementation of the proposed action at each site is expected to cause the water surface elevation during flood conditions to decrease slightly.

Salt Flat: At Salt Flat, construction of the right abutment and the single column bent is planned for completion within the active low-flow channel during the fall and winter of 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period). All temporary facilities placed within the river channel will be removed from the floodplain, as necessary, prior

to the onset of the flooding and will return as required to complete work within the specified fall and winter 2003 time-frame

Water Resources

Construction of any of the proposed bridges would temporarily increase turbidity and total suspended solids in the water column, could potentially result in a spill of hazardous materials (i.e., oil, grease, gasoline, solvent) into the Trinity River, and could temporarily degrade a municipal or domestic water supply. Construction activities will be staged to minimize potential water quality effects, and appropriate measures to minimize impacts to water quality will be implemented.

Fisheries Resources

Benefits of the proposed action to fisheries include: 1) A reduction in the number of bridge supports located within the ordinary high water channel which increases available riverine habitat; 2) Removal of existing bridges will reduce channel constraints and increased hydraulic velocities that can impair fish passage during high river flows; 3) Where in-stream work is proposed, mitigation and conservation measures incorporated into the projects minimize or avoid direct impacts to rearing coho salmon and riverine habitats (e.g., installation of anti-spawning mats eliminates use of in-river work area by spawning fish); and 4) Replacement of bridges will improve the ability for the Trinity River Division of the Central Valley Project to provide fish habitat restoration flows that would improve potential to recover depressed Trinity River salmonid stocks.

Vegetation, Wildlife, and Wetlands

The action has the potential to temporarily impact wildlife in the area but mitigation measures to reduce impacts (e.g., timing of work, pre-project surveys and removal of species of concern, and post-project replacement of riparian vegetation) will result in no significant long-term effects.

Recreation

Though implementation of the proposed actions would incur temporary impacts to recreation (e.g., heavy equipment activity and construction vehicle traffic within and directly adjacent to the Trinity River), long-term recreational safety benefits (i.e., fewer piers in the river channel, increased bridge deck elevation) would be realized.

Socioeconomics, Population, and Housing

The project could directly generate short-term income growth through the payment of wages and salaries, but would result in little increased long-term economic activity.

Socioeconomics, Population, and Housing

The project could directly generate short-term income growth through the payment of wages and salaries, but would result in little increased long-term economic activity. A short-term increase in the demand for housing in the County could occur as a result of construction workers seeking lodging during the construction period.

Tribal Trust

The need to restore and maintain the natural production of anadromous fish in the Trinity River mainstem originates partly from the federal government's trust responsibility to protect the fishery resources of the region's Indian tribes. Construction-related impacts to tribal trust

resources are expected to be short-term and outweighed by the overall benefits to these tribal trust resources through implementation of the Trinity River Restoration Program.

Cultural Resources

No cultural resource sites were identified within the project Area of Potential Effect (APE), and potential archaeological resources have not been observed or recorded within the project APE. Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. Upon discovery of buried cultural materials or human remains, work within 50 feet of the find shall be halted and the proper agency contacted.

Air Quality

Construction associated with the proposed Project requires the use of construction equipment that temporarily contributes to air pollution in the Trinity River Basin area in the form of ozone precursors and particulate matter (PM_{10}). Reclamation will include provisions in the construction bid documents that the contractor will implement a dust control program to limit fugitive dust and PM_{10} emissions.

Environmental Justice

There is no evidence to suggest that this project would cause a disproportionately high, adverse human health or environmental effect on minority and low-income populations, compared to other residents in the project corridor[s] and other Trinity County residents.

Aesthetics

Construction could result in long-term visual impacts to key viewing areas; specifically, views from adjacent residences will change based on the location of proposed structures, however, the overall replacement of these bridges will not significantly impact the aesthetic qualities of the surrounding area

Public Services and Utilities / Energy

Construction work and temporary road closures will be staged in a manner that will allow for emergency service provider access. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will only occur during non-peak hours

Transportation / Traffic Circulation

The use of heavy construction equipment to transport material to and from the project work site could affect local road conditions on the designated haul routes by increasing the rate of road wear. Pre- and post-construction surveys shall be performed to determine existing roadway conditions and if any damage has occurred during construction.

SUMMARY:

The proposed project, with all mitigation measures in place, will benefit, rather than adversely affect, geology, fluvial geomorphology, and soils, water quality, fishery resources, vegetation, wildlife, and wetlands, recreation, tribal trust assets, and traffic/transportation. Completion of the Trinity River Bridges Project, as planned, will contribute to long-term environmental quality of the Trinity River ecosystem.

TRINITY RIVER BRIDGES PROJECT EA / DRAFT EIR

Executive Summary

Executive Summary

Introduction

The Trinity River Mainstem Fishery Restoration Final Environmental Impact Statement / Environmental Impact Report (FEIS/EIR) identified four bridges that were susceptible to impacts associated with peak fishery flow releases: the Salt Flat, Bucktail, Poker Bar, and Biggers Road bridges. Adverse impacts to these bridges by flood flows, including overtopping, flooded approaches and scouring, have occurred as recently as 1997, when these bridges and/or their approaches were rendered inaccessible by flood flows that severely limited residential and commercial use of these facilities for several days. This Environmental Assessment/Draft Environmental Impact Report (EA/Draft EIR) addresses the environmental issues, alternatives, and impacts associated with the modification and/or replacement of the Salt Flat, Bucktail, Poker Bar, and Biggers Road bridges on the Trinity River, below Lewiston Dam (Project). The U.S. Bureau of Reclamation (BOR), the U.S. Bureau of Land Management (BLM), and Trinity County (County) prepared this EA/Draft EIR. The BOR will be responsible for the construction of the proposed Project and will function as the federal lead agency under the National Environmental Policy Act (NEPA). The BLM will serve as a federal co-lead agency since it will have approval authority for Project activities on public lands under its administrative authority (i.e., Salt Flat and Bucktail sites). Trinity County will be providing funds made available through the California Department of Fish and Game (CDFG) Coastal Salmon Recovery Program for the construction of the Salt Flat and Biggers Road bridges. The primary cooperating (NEPA), responsible and trustee (California Environmental Quality Act [CEQA]) agencies include:

- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- California Department of Fish and Game
- California Regional Water Quality Control Board, North Coast Region
- California State Lands Commission

The proposed Project is one part of a larger effort to restore the anadromous fishery of the Trinity River as described in the Secretary of the Interior's 2000 Trinity River Record of Decision (ROD). Although the flow schedule prescribed by the ROD is subject to a Court-mandated review (pending completion of a supplemental EIS/EIR), the proposed bridge replacements have been ordered to proceed because the proposed bridge improvements each have "independent utility" and are not dependent on future ROD flows for their justification. The Project, for example, will improve BOR's flexibility in dealing with major storm events creating possible flood control problems, and thus will help protect the citizens of Trinity County from possible flooding dangers. As constructed, the four bridges have varying ability to accommodate the 100-year storm event or flow releases from Lewiston Dam greater than 6,000 cubic feet per second (cfs) (combined with tributary inflows) without sustaining damage and/or creating a hazardous

situation for users. If implemented, the proposed Project could reduce the existing likelihood of flooding of the four bridges and/or their access roads, and the potential loss of property and lives.

Project History and Background

In 1981, the Secretary of the Interior directed the United States Fish and Wildlife Service (USFWS) to initiate a 12-year flow study to determine the effectiveness of flow restoration and other mitigation measures for impacts of the Trinity River Diversion (TRD). In 1984, Congress enacted the Trinity River Fish and Wildlife Program to promote and support management and fishery restoration actions in the basin. In 1994, an EIS/EIR was initiated to evaluate a range of alternatives to restore the natural production of anadromous fish on the mainstem Trinity River below Lewiston Dam. The resulting Trinity River Mainstem Fishery Restoration FEIS/EIR (USFWS et al. 2000) and associated ROD (DOI 2000) directed the U.S. Department of the Interior (DOI) agencies to implement the Preferred Alternative identified and set forth prescribed Trinity River flows for five different water year types: extremely wet (815,200 acre feet annually [afa]; wet (701,000 afa); normal (646,900 afa); dry (452,600 afa); and critically dry (368,600 afa). As previously described, the FEIS/EIR also identified four bridges that were susceptible to impacts associated with floods and peak flow levels prescribed by the ROD for fish habitat improvements.

In interim orders issued in April and September 2001, and in a Memorandum Decision issued on December 9, 2002, Judge Oliver W. Wanger of the United States District Court for the Eastern District of California enjoined additional flows beyond those necessary under the ROD for a critically dry year pending completion of a Supplemental Environmental Impact Statement (SEIS) for the December 2000 "Flow Decision." The Memorandum Decision also set forth a flow regime that was to remain in effect while the process of completing an SEIS was underway and stated that "[a]ll non-flow measures prescribed by the ROD shall proceed."

On February 24, 2003, Judge Wanger heard argument in connection with his final judgment in the case. At the end of this hearing, he extended the deadline for completing the SEIS from April 10, 2003, to July 9, 2004. In all other respects, however, his reasoning tracked the December 9, 2002, Memorandum Decision. For example, the final judgment states that "nothing in this judgment is intended to delay or to affect implementation of any other fishery restoration measure identified in the ROD." Flows in the interim period were restricted to a dry year allocation of 452,600 afa for controlled flows even in normal, wet, and extremely wet years. The referenced measures presumably include the actions necessary to raise Trinity River bridges to accommodate the higher flows that may occur once the SEIS is complete and a new ROD has been approved. Because it is unclear whether those flows will be reauthorized after completion of an SEIS and new ROD, the flows authorized by Judge Wanger are deemed to constitute the "existing [hydrological] environment" for CEQA purposes, and are considered to be part of both the No Project Alternative (for CEQA) and the No-Action Alternative (for NEPA). These assumptions are considered conservative, and thus are consistent with standard methodologies for environmental impact assessment.

Purpose and Need for the Project

The purpose of the proposed Project is to modify or replace, as necessary, the existing Salt Flat, Bucktail, Poker Bar, and Biggers Road bridges across the Trinity River in order to accommodate possible future operational changes to the TRD of the Central Valley Project (CVP).

The need for the Proposed Action results from:

- The existing high likelihood of flooding (pre-Trinity ROD) of the four bridges and/or their access roads with potential loss of property and lives (as exemplified during the 1997 New Year's Day Flood).
- The current limitation on the operation of Trinity Dam during periods of high inflows, which limits safety of dam water releases to the Trinity River via Lewiston Dam to 6,000 cfs when the actual release capacity of the Trinity Dam is 13,750 cfs.
- Requirements in the Secretary of Interior's December 19, 2000, Trinity River ROD to restore the Trinity River fishery through a combination of higher releases from Lewiston Dam (up to 11,000 cfs), floodplain infrastructure improvements, channel rehabilitation projects, fine and coarse sediment management, watershed restoration, and an Adaptive Environmental Assessment and Management Program.
- The directive of the United States District Court of the Eastern District of California, in *Westlands Water District, et al., v. U.S. Department of the Interior, et al.* (Civil Action CIV – F – 00-7124-OWW/DLB) (E.D. Cal.) requiring that "[a]ll non-flow measures prescribed by the ROD shall proceed" while the Department of Interior prepares an SEIS to remedy the defects in the original EIS prepared for the December 19, 2000, ROD.

GOALS AND OBJECTIVES OF THE PROPOSED ACTION

The following goals are derived from the FEIS/EIR (USFWS et al. 2000) and the December 19, 2000 ROD (DOI 2000). These goals support the Proposed Action and provide a framework for the development of alternatives required by NEPA and CEQA:

- Provide safe and reasonable year-round access to parcels of land served by the Salt Flat, Bucktail, Poker Bar and Biggers Road bridges across the Trinity River.
- Allow dam operators maximum flexibility to provide instream flow releases from Lewiston Dam adequate to meet the fishery and geomorphic flow needs for the mainstem Trinity River and to fulfill the Trinity River Total Maximum Daily Load (TMDL) for sediment and restore the coldwater fishery beneficial use.

The following Project objectives apply to the Project's lead/responsible agencies for CEQA purposes.

- Minimize the threat to public safety and potential damage to property posed by the existing high likelihood of flooding.
- Provide maximum flexibility for implementing a variety of potential Trinity River fishery flow alternatives, as well as other flow alternatives outside the ROD such as increasing dam releases during periods of high downstream tributary inflows.
- Allow for high-efficiency sediment transport in the Trinity River to maximize the amount of sediment transported on a per acre-foot basis so that Trinity River can be removed from California's Clean Water Act Section 303(d) Impaired Waterbodies List, while minimizing the total amount of water necessary to transport sediment through the river system.
- Provide maximum flexibility for operations of the TRD during periods of high runoff and flooding which could result in increased water in storage available for multiple beneficial uses (i.e., fisheries, recreation, water supply, water quality and power production).
- Provide alternative access on a short-term basis during project implementation.
- Recovery of fish and wildlife resources that are listed as threatened and endangered.

The following objectives apply to the Projects responsible and trustee agencies, including the Hoopa Valley Tribe (HVT), North Coast Regional Water Quality Control Board (NCRWQCB), the State Lands Commission (SLC), the CDFG, and the State Water Resources Control Board (SWRCB).

- Comply with the Water Code to ensure the highest reasonable quality of waters of the state and allocate those waters to achieve the optimum balance of beneficial uses.
- Protect the public trust assets of the Trinity River watershed.
- Protect, conserve, restore, and manage fish, wildlife, and native plant resources.
- Comply with the Water Quality Control Plan for the Hoopa Valley Indian Reservation to preserve and enhance water quality on the Reservation, and to protect the beneficial uses of water.

Similarities and Differences between NEPA and CEQA

This document meets the legal requirements of the NEPA (42 *United States Code* [USC] Section 4321 et seq.) and the CEQA (*California Public Resources Code*, Section 21000 et seq.). The NEPA and CEQA are laws requiring that governmental agencies evaluate the environmental impacts of their proposed decisions before making formal commitments to carry them out and that such evaluation be done in detail, with public involvement. The NEPA is a federal law that applies to federal agencies, whereas the CEQA is a California law that applies to state and local agencies.

Although there are similarities between CEQA and NEPA, the two Acts are not identical in all respects. For example, NEPA is a procedural law requiring agencies to evaluate a range of reasonable alternatives, disclose potential impacts, and identify feasible mitigation. CEQA, in contrast, is partly "substantive" in that it requires an agency to adopt "feasible" mitigation measures for any "significant effect on the environment." In a full-blown EIS, as opposed to an EA, reasonable alternatives must be rigorously and objectively evaluated at a greater level of detail under NEPA than is required under CEQA. The trigger for preparing an EIR, as opposed to an EIS, is lower under CEQA than under NEPA, however. It is therefore not uncommon to have a joint NEPA/CEQA document that is not an EIS/EIR but rather an EA/EIR. This document is an example of an EA/EIR. It has been prepared because Trinity County, as CEQA lead agency, determined that the impacts of the Project were sufficient to trigger an EIR under the low threshold CEQA standard. The federal lead agencies, however, do not believe that an EIS is required under the higher NEPA threshold. Even so, the EA shares many attributes of an EIS – in particular the detailed analysis of alternatives.

Required Permits and Approvals

Provided below is a list of the related laws, rules, regulations, and federal executive orders that were considered in the preparation of this EA/Draft EIR.

Discretionary Approvals

Provided below is a list of the various discretionary approval processes that have been completed or are still being coordinated concurrent with the NEPA/CEQA environmental review process:

- Section 404 Clean Water Act Permit – U.S. Army Corps of Engineers (Corps), San Francisco District, Eureka Field Office
- Compliance with the Federal Endangered Species Act (ESA) – USFWS, Eureka, and National Marine Fisheries Service (NMFS), Arcata
- Compliance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA) – NOAA-Fisheries, Arcata
- Section 1601-1603 Streambed Alteration Agreement – CDFG, Region 1
- Compliance with the California Endangered Species Act (CESA) – CDFG, Region 1
- Public Agency Lease – SLC
- Section 401 Clean Water Act Water Quality Certification – NCRWQCB
- Trinity County Ordinances (Decomposed Granite Grading, Floodplain Management, Fire Safe)

CONSISTENCY DETERMINATIONS

Provided below is a list of the governing laws for which a consistency determination will need to be made:

- Section 106 of the National Historic Preservation Act (NHPA)
- Federal Wild and Scenic River Act (WSRA)
- State Wild and Scenic River Act (WSRA)

FEDERAL EXECUTIVE ORDERS

Provided below is a list of the federal executive orders and implementing polices with which the Project would need to comply:

- Executive Order 11988 for Floodplain Management
- Executive Order 12898 for Environmental Justice
- Executive Order 11990 for Wetlands
- Executive Order 13007 for Indian Sacred Sites on Federal Land
- Executive Order 12373 for State, Area-Wide, and Local Plan and Program Consistency
- Indian Trust Assets

Scoping and Public Involvement

The County initiated the Public Scoping process by forwarding a Notice of Preparation (NOP) of an EIR to the State Clearinghouse on April 11, 2002. The NOP and Scoping Report are included in this document as **Appendices B** and **C**. The BOR and the County held a joint NEPA/CEQA scoping meeting on May 2, 2002 in Weaverville, California. During this meeting, members of the public were asked what issues they felt should be addressed in this EA/Draft EIR. As the public comment period continued, the lead agencies received letters that helped identify areas of concern. These areas of concern and other oral comments received at the scoping meeting were considered during the preparation of the EA/Draft EIR.

The following issues associated with the proposed Project are anticipated to be controversial based on comments received during the public scoping process:

- Public vs. private ownership of the bridges
- Potential trespass on private lands
- Long-term maintenance of the bridges
- Temporary access during construction
- Access to a Nor-Rel-Muk Nation cultural resource site near Salt Flat on BLM lands
- Bridge design criteria including width, weight limits and floodwater clearance
- Short term construction impacts
- Source of construction funds
- Potential effects to Wild & Scenic River designation (i.e., Outstandingly Remarkable Values [ORVs])

Existing Site Conditions

SALT FLAT

The Salt Flat Project study area is located within the *Lewiston, California* 7.5' United States Geological Survey (USGS) quadrangle, Section 13, Township 33 North, Range 9 West, Mount Diablo Base & Meridian (MDB&M). The Salt Flat Bridge on Salt Flat Road is located approximately 1,000 feet west of Goose Ranch Road and 2.5 miles west of Lewiston, California at River Mile (RM) 107.

The existing Salt Flat Bridge is a single lane, four-span, 272-foot-long, 10-foot-wide railroad flatcar bridge that serves 27 parcels on the right bank of the Trinity River. According to the Salt Flat Property Owners Association, the bridge has been subjected to heavy loads, such as loaded ten-wheeled dump trucks and concrete trucks on a regular basis each spring/summer for property and roadway improvements. No load rating has been developed for the structure. The river is divided during low flows, separated by a 70-foot-wide channel bar deposit. The right channel is the main channel, and is about 110 feet wide. The left channel, constructed by the BOR for fish habitat in the early 1990s, is about 30 feet wide.

BUCKTAIL

The Bucktail Project study area is located within the Lewiston, California 7.5' USGS quadrangle, Section 3, Township 33 North, Range 9 West, MDB&M. Bucktail Bridge (Bridge No. 5C-207) is located about five miles west of Lewiston, California, where it spans the Trinity River near RM 105.

The existing Bucktail Bridge is a single span, 76-foot-long, 32-foot-wide steel girder superstructure with concrete deck, and concrete abutments supported by steel "H" piles. The bridge, which is owned and maintained by Trinity County, serves the Bucktail subdivision (about 60 parcels), as well as lands administered by the BLM. A parking area and fishing access is located at the left (southeast) corner of the bridge.

The main channel of the Trinity River at this location is near the left (east) bank; an overflow channel on the right is separated from the main channel by a levee extending several hundred feet upstream of the bridge. To prevent river water from flowing through the residential area right of the bridge during periods of high flows, this levee was breached to allow overflow into the right channel. An existing 30-inch diameter culvert is located beneath the overflow section of the road. It is assumed that this culvert was constructed to pass minor excess flows. The existing roadway is overtopped during high flow events.

POKER BAR

The Poker Bar Project study area is located within the Weaverville, California 7.5' USGS quadrangle, Sections 33 and 34, Township 33 North, Range 9 West, MDB&M. The existing Poker Bar bridges, located approximately 10 miles downstream of Lewiston Dam, span the Trinity River near RM 102, halfway between the towns of Lewiston and Douglas City, California.

The existing Poker Bar bridges are privately owned, and consist of two railroad flatcar structures that cross two separate channels of the Trinity River. The river bifurcates and flows around an island (Poker Bar) consisting of a very large channel bar deposit. The bridges connect Poker Bar Road with Reo Lane, and Quad P road and serve 77 parcels on the right bank of the river.

The existing structure over the left channel is 52-feet long, 20-feet wide and constructed with twin side-by-side railroad flatcars, supported by concrete abutments on steel "H" piles. The existing structure over the right channel is 87-feet long, 18-feet wide and constructed with twin side-by-side railroad flatcars, supported on abutments consisting of four steel "H" piles and a timber log. The existing bridges do not have load ratings. They do not appear to have been designed for seismic loads, and bridge railings do not meet current standards.

BIGGERS ROAD

The Biggers Road Project study area is located within the Weaverville, California 7.5' USGS quadrangle, Section 32, Township 33 North, Range 9 West, MDB&M. This bridge is located adjacent to Steel Bridge Road, approximately three miles upstream (east) of Douglas City, near RM 97.

The existing Biggers Road Bridge serves nine parcels on the right bank of the river. The single-lane structure is a four-span, 204-foot long, 12-foot wide, railroad flatcar bridge supported on concrete piers and abutments. The railroad flatcars that make up the bridge spans are all different depths and types, and were modified to fit the existing piers and abutments. Portions of the bridge have low live load ratings, and the existing bridge rail is very weak and not capable of resisting any vehicle load or redirecting any type of vehicle. The existing Steel Bridge Road profile begins to overtop when flows reach Q = 15,000 cfs.

Description of the Proposed Action and Project Alternatives

Alternatives that were developed to modify or replace the existing Salt Flat, Bucktail, Poker Bar and Biggers Road bridges on the Trinity River are discussed in **Chapter 2**, including the No-Action condition, which represents the baseline for NEPA purposes. As noted earlier, No-Action conditions and "existing conditions" (a CEQA concept) are essentially the same. The alternatives discussed below are considered ostensibly feasible and would avoid or substantially lessen at least one of the significant environmental effects of the Project. The range of alternatives

selected and discussed in this document represents a reasonable array that will provide for meaningful public participation and informed decision-making.

SALT FLAT BRIDGE

No-Action Alternative

Under the No-Action (No-Project) Alternative, the BOR, the BLM, and the County would not proceed with replacement of the Salt Flat Bridge. The No-Action (No-Project) Alternative is the existing condition of the bridge and ancillary features at the Salt Flat Project site.

Proposed Action (Replacement Slightly Downstream of Existing Alignment with a Two-Span Structure)

The Proposed Action bridge at Salt Flat will be constructed approximately four to 44 feet downstream (centerline to centerline) of the existing left and right bridge abutments, respectively. Because the new left abutment will be constructed nearly at the location of the existing left abutment, the first flatcar span of the existing bridge will be "rotated" and modified to provide temporary construction access for the property owners. The bridge will be constructed on private property, and will be owned collectively by the Salt Flat Property Owners Association. The proposed bridge type is a two-span prefabricated steel truss with reinforced concrete deck. The bridge will be approximately 280-feet long (two 140-foot spans), with an 18-foot clear roadway width, designed to carry HS20 loading. New structures designed for HS20 vehicles are capable of carrying any legal load vehicle and do not require posted limits. The superstructure and guardrail will be fabricated with weathering steel. The Proposed Action requires raising the left road approach approximately four feet to provide sufficient hydraulic freeboard over the river.

Alternative 1 (Replacement Upstream, Private Ownership)

The Alternative 1 bridge will be constructed at an angle to the existing bridge approximately 30 to 65 feet upstream of the existing left and right abutments, respectively. The right bridge abutment and approach will be located within lands administered by the BLM. The bridge type is a two-span prefabricated steel truss with reinforced concrete deck. The bridge will be approximately 280-feet long (two 140-foot spans), with an 18-foot clear roadway width, designed to carry HS20 loading. This alternative requires raising the left road approach approximately four feet to provide sufficient hydraulic freeboard over the river.

Alternative 2 (Replacement Upstream, Public Ownership)

Alternative 2 is essentially the same bridge design as Alternative 1. However, Trinity County Transportation Department Design Guidelines used in the development of Alternative 2 resulted in the following differences:

- Bridge Width — Two 12-foot lanes (24 feet width)
- Roadway Width — Two 12-foot lanes, 2 2-foot shoulders (paved)
- Roadway surface — Asphaltic concrete
- Roadway drainage — Crowned and/or ditched with approved energy dissipater

The fundamental difference between Alternative 1 and Alternative 2 is ownership. The existing bridge is on private property, however, the abutments of the proposed Alternative 2 bridge will be entirely or partially located on lands managed by the BLM. Under this alternative, the bridge and associated roadway will be owned and managed by a

public agency (i.e., Trinity County) within a permanent easement conveyed by the BLM. The relocation of the bridge onto public lands may result in ownership and access issues. Temporary construction easements will be required for activity on private property both upstream and downstream of the bridge and roadway. Permanent easements will be required both upstream and downstream of the proposed roadway. The BLM and their cooperators will need to address the following issues to accommodate the proposed bridge, roadway alignment and approach fills.

- Transfer of an easement or ownership from the BLM to the County
- Assignment of long-term bridge and Salt Flat Road maintenance responsibilities to the County
- Development of a turn-around on River right to meet County Road guidelines
- Potential development of additional river access

BUCKTAIL BRIDGE

No-Action Alternative

Under the No-Action (No-Project) Alternative, the BOR, the BLM, and the County would not proceed with proposed culvert and roadway improvements at the Bucktail Bridge site. The No-Action (No-Project) Alternative is the existing condition of the bridge and ancillary features at the Bucktail Project site.

Proposed Action (Raised Right Approach Roadway and Arch Culvert)

The Proposed Action for the Bucktail Bridge consists of raising the west approach roadway and replacing the existing 30-inch diameter culvert, approximately 215 feet right (west) of the existing bridge, with a nine-foot-wide by four-foot-high arch structure. The arch culvert design will include a natural "bottom" and will increase the conveyance of flows under the Browns Mountain Road embankment. The design also includes raising the Browns Mountain roadway profile approximately 4.5 feet. The proposed roadway embankment and culvert will exhibit hydraulic characteristics similar to the existing system but will be overtopped only during extreme high flows greater than the 100 year event. A detour will be constructed around the existing road and culvert located to the west of the existing bridge, outside of the active low-flow channel. It is estimated that the detour will be in operation for a period of about eight weeks. The detour will be built within the active flood plain, northerly of the existing road. The existing bridge will remain in place and open to traffic at all times during construction, and will be used to provide access for homeowners and construction equipment and personnel.

Alternative 1 (Raise Existing Upstream Levee)

The Alternative 1 for the Bucktail Bridge site consists of raising the existing levee on the right bank of the river upstream of the existing bridge. The existing "arc-shaped" levee extends upstream for approximately 450 linear feet. This alternative proposes raising the levee to an elevation approximately 0.5 foot above the calculated water surface for the Q_{100} (spring with ROD) flow event. This design increases the height of a portion of the existing levee; extends the length of the existing levee by 50 feet upstream; and fills in the existing "notch" in the levee. Under this alternative, no modifications to Browns Mountain Road would be required.

POKER BAR BRIDGES

No-Action Alternative

Under the No-Action (No-Project) Alternative, the BOR, BLM, and County would not proceed with the replacement of the Poker Bar Bridges and roadway improvements at the Poker Bar site. The No-Action (No-Project) Alternative is the existing condition of the bridge and ancillary features at the Poker Bar Project site.

Proposed Action (Replacement Upstream with Two Single Span Structures)

The proposed Poker Bar bridges will be constructed approximately 33 feet upstream and parallel to the existing bridges. The bridges will remain on private property, and upon completion of construction will be the property of the Poker Bar Property Owners Association – East. The proposed bridge types are single span prefabricated steel trusses with reinforced concrete deck, with an 18-foot clear roadway width designed to carry HS20 live loading. The proposed bridges are 110-feet long over the left (southeast) channel and 80 feet long over the right (northwest) channel. The portion of road between the two bridges and the approaches will have a 20-foot clear roadway width and will be paved with asphalt concrete. The existing bridges will remain open to traffic and will provide access for homeowners and construction equipment and personnel during construction.

Alternative 1 (Replacement Downstream with Two Single-Span Structures)

Under Alternative 1, the Poker Bar bridges will be constructed approximately 35 feet downstream of the existing bridges. The bridges will remain on private property, and will be the property of the Poker Bar Property Owners Association - East. The proposed bridge types are single span prefabricated steel trusses with reinforced concrete deck, with an 18-foot clear roadway width, designed to carry HS20 live loading. The proposed bridges are 110-feet long over the left channel, and 80 feet long over the right channel. The portion of road between the two bridges and the approaches will have an 18-foot clear roadway width, and it will be paved with asphalt concrete. The road between the two bridges will be raised to elevation 1740.0 feet at the left bridge abutment 2 and transition to elevation 1734.0 feet at the right bridge abutment 1.

BIGGERS ROAD BRIDGE

No-Action Alternative

Under the No-Action (No-Project) alternative, the BOR, the BLM, and the County would not proceed with proposed bridge and roadway improvements at the Biggers Road Project site. The No-Action (No-Project) alternative is the existing condition of the bridge and ancillary features at the Biggers Road Project site.

Proposed Action (Replacement Upstream with a Two-Span Steel Truss Structure)

The proposed Biggers Road Bridge will be constructed approximately 137 feet upstream of and parallel to the existing bridge. The bridge will remain on private property and will be owned collectively by homeowners of the "Treadwell Subdivision." The proposed bridge type is a two-span prefabricated steel truss with reinforced concrete deck. The bridge will be approximately 230-feet long (one 130-foot span and one 100-foot span), with a 10-foot clear roadway width, designed to carry HS20 loading. The existing Steel Bridge Road profile will remain unchanged except for the area in the immediate proximity of the bridge left approach intersection. The proposed bridge will be designed for overtopping on the left (east) side, near the intersection of the bridge and Steel Bridge Road. A turnout area will be provided near the south end of the left abutment, parallel to Steel Bridge Road, to allow vehicles to enter and exit

Steel Bridge Road more safely. The existing bridge will remain open to traffic and provide access for homeowners and construction equipment and personnel during construction.

Alternative 1 (Replacement Upstream, Raise Steel Bridge Road)

The Alternative 1 bridge will be constructed approximately 137 feet upstream and parallel to the existing bridge. The bridge will remain on private property, and will be owned collectively by homeowners of the "Treadwell Subdivision". The proposed bridge will be 230 feet long, with a 10-foot clear width, designed to carry HS20 live loading, and consisting of one 140-foot-long and one 90-foot-long span. Steel Bridge roadway profile or vertical alignment will need to be raised approximately four feet in conjunction with the bridge to provide hydraulic freeboard over the Trinity River. A retaining wall will be placed on the riverside of Steel Bridge Road to retain the raised roadway embankment and maintain the 16-foot travel width. A turnout area will be provided near the south end of the bridge, parallel to Steel Bridge Road.

Affected Environment and Environmental Consequences

The affected environment and the environmental consequences of implementing each Project alternative are described in **Chapter 3**. Each section, which addresses a specific environmental topic (i.e., Land Use, Fishery Resources), includes a discussion of the affected environment (CEQA existing conditions), environmental consequences (CEQA environmental impacts), methodology, significance criteria (if applicable), and mitigation measures. The affected environment discussion describing the existing regional and local conditions is used as the environmental baseline for analyzing the significance of potential effects of the proposed action and the significance of the effects of Project alternatives with respect to each specific resource area. The following subsections summarize the environmental consequences of implementing each Project alternative. In the instances where site-specific impacts are relevant, they are summarized. A complete summary of all Project impacts and associated mitigation measures are presented at the end of this Executive Summary (**Tables ES-1** through **ES-4**) for all action alternatives.

LAND USE

Section 3.2 describes land use from a regional and local perspective. Land use within the Trinity River Basin is greatly influenced by the large amount of public, tribal, and private forestlands, much of which is used for timber production and other natural resource related uses. The development potential of most of the land in the watershed is restricted by topography, public ownership, Timber Production Zone zoning (which applies to most private land), and by County and tribal planning policies that guide development towards already developed areas and discourage development on resource lands. In general, all parcels served by the four bridges have been subdivided to their fullest extent possible under existing zoning designations; therefore, future rural residential development in the bridge vicinities is unlikely. Located directly adjacent to the river, many of these parcels fall into the Flood Hazard and Scenic Overlay designation zones, which carry restrictions that make further development of these areas difficult.

The following impacts to land use in the Project study area were assessed: construction-related disruption of adjacent land uses; disruption of adjacent land uses due to long-term operation of the proposed Project; the conversion of vacant land to a new facility; and Project consistency with the goals, policies, and objectives of the Trinity County General Plan (County 2001), as well as local community plans, policies, and ordinances.

The No-Action Alternative would not result in land use impacts. Construction of any of the action alternatives (i.e., Proposed Action, Alternative 1, and Alternative 2) could result in potential nuisance effects to adjacent residences, including limiting access to the river for recreational activities, noise, disruption of access to residences, and short-term traffic disruptions. Access will be maintained throughout the construction period for all adjacent private residences, and BOR shall limit the amount of daily construction equipment traffic by staging on the Project site at the end of each workday. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Land use impacts resulting from the Proposed Action are limited to the relocation of a well located near the western (right) abutment and the potential need to relocate a portion of the service lines along Salt Flat Road. In addition to the potential relocation of the private well and service line on the north edge of Salt Flat Road, construction of Alternatives 1 and 2 would also convert a small portion of vacant BLM land (i.e., less than one acre) to a new bridge facility, which would require a public right-of-way (ROW) agreement as well as approval of maintenance and liability agreements between BLM and the Salt Flat Property Owners Association. However, Salt Flat homeowners would need to agree to provide public access to their lands. Transfer of ownership to a public entity (Trinity County via BLM) under Alternative 2 could result in long-term disruption due to increased public usage, which is a significant unavoidable impact under CEQA, but not NEPA.

Bucktail. Increasing the elevation of the right (western) road approach under the Proposed Action would result in the loss of unimproved parking used by the public to access the river. An alternative parking area will be designed to replace this loss of unofficial parking by utilizing adjacent BLM lands or new road shoulders. Implementation of Alternative 1 will require a right-of-way agreement between BLM and a private property owner.

Biggers Road. Construction activities associated with Alternative 1 would affect adjacent residences via nuisance noise, air quality, and traffic disruption and delays. If a minimum of one lane of traffic cannot be maintained through the construction site at all times, then the BOR and their contractor shall contact the affected property owners to coordinate feasible and mutually convenient dates/times during which construction could take place. In addition, construction of Alternative 1 would require an easement from private property owners.

GEOLOGY, FLUVIAL GEOMORPHOLOGY, AND SOILS

The proposed Project was analyzed against known geologic, geomorphic, and soil conditions present within the Project study area in **Section 3.3**. Adverse impacts were considered significant if implementation of Project alternatives could subject people, structures, or other resources to geologic or seismic hazards; disrupt, eliminate, or otherwise render unusable geologic or soil resources; or be inconsistent with the ten Trinity River healthy river attributes identified in the Trinity River Flow Evaluation Final Report (USFWS and HVT 1999).

Although the Trinity County area historically has experienced low seismicity, moderate to strong ground shaking could occur following a large earthquake on one of the potentially active faults in the region. In the event of a significant earthquake, any people on or under the existing and proposed bridge structures would be exposed to geologic hazards. Final design of the bridges, culverts, and/or levee shall meet all California Department of Transportation (Caltrans) and American Association of State Highway and Transportation Officials (AASHTO) standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction.

Construction activities would result in the disturbance and loosening of soils and would expose them to elements, which would increase the potential for wind and water erosion, particularly if any soils were left exposed during the later winter and early spring periods of high precipitation. Erosion and sediment control measures will be implemented for all action alternatives. The No-Action Alternative would not adversely affect geology, fluvial geomorphology, or soils. The proposed Project is consistent with the ten Trinity River healthy river attributes. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. The potential for erosion and associated sedimentation of the Trinity River would be greater for Alternative 1 than for the Proposed Action due to the greater amount of earthwork associated with creation of new roadway approaches and a bridge in a new location. The Alternative 2 bridge and approach roadway would be wider than either the Proposed Action or Alternative 1. This could result in greater erosion and sedimentation impacts for Alternative 2 than for the Proposed Action or Alternative 1 bridges.

Bucktail. The potential for continued erosion and associated sedimentation of the Trinity River would be greater for Alternative 1 than for the Proposed Action due to the action of Trinity River flows on the new levee materials designed to force all Trinity River flows under the existing bridge.

Biggers Road. Potential erosion and associated sedimentation impacts would be greater for Alternative 1 than for the Proposed Action. Under Alternative 1, the Steel Bridge Road profile or vertical alignment would be raised approximately four feet and a retaining wall would be constructed on the riverside of Steel Bridge Road. The potential for erosion and associated sedimentation increases due to additional earthwork associated with raising the roadway and constructing the retaining wall.

WATER RESOURCES

Section 3.4 describes the surface water hydrology and groundwater from both regional and local perspectives, as well as site-specific location hydraulics associated with each bridge location. The primary hydrologic concerns identified in the EA/Draft EIR are changes in base floodwater surface elevation and potential relocation of private wells located in proximity to construction activities.

The No-Action Alternative would not impact water resources in the Trinity River Basin. However, under the No-Action Alternative the beneficial effects of the Proposed Action (i.e., more efficient future passage of Trinity River flows) would not be realized. Under current conditions, the existing bridge structures can adequately convey flows only up to a certain threshold, at which point flows back up behind the bridge structures and overtop existing bridges and/or roadways.

Any structure constructed within the floodplain that poses an obstruction to flow will result in an increase in the Base Flood Elevation (BFE). The existing bridges at Salt Flat, Bucktail, Poker Bar, and Biggers Road all currently obstruct Trinity River flood flows due to (1) the constructed piers and abutments located within the flood channel; (2) the reforming of the upstream channel during construction to accommodate approach roads and improve bridge hydraulics, and; (3) in some cases the superstructure itself blocking flows which are too high to pass beneath the bridge unobstructed. All construction alternatives evaluated in this document would be designed to ensure that no permanent increase in BFE over what currently exists would occur. In fact, water surface elevations are expected to

decrease slightly during flood conditions with implementation of each of the action alternatives. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. At Salt Flat, construction of the right abutment and the single column bent is planned for completion within the active low-flow channel during the fall and winter of 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period). All temporary facilities placed within the river channel will be removed from the floodplain as necessary prior to the onset of the flooding and will return as required to complete work within the specified fall and winter 2003 time-frame. Relocation of existing wells and/or private service water lines is addressed in **Section 3.2**, Land Use.

WATER QUALITY

Section 3.5 describes regional and local water quality. Specific water quality concerns in the Trinity River Basin include contamination of a public water supply, water temperature, erosion and sedimentation and subsequent increases in turbidity and suspended solids levels, discharge of wastes, pollutants, and hazardous materials in and around the Trinity River, and degradation of Trinity River beneficial uses identified in the *Water Quality Control Plan for the North Coast Region* (Basin Plan) (NCRWQCB 2001). The No-Action Alternative would have no impact on Trinity River water quality; however, the beneficial effects of improving the conveyance of high flow events would not be realized.

Construction of any of the action alternatives would temporarily increase turbidity and total suspended solids in the water column, could potentially result in a spill of hazardous materials (i.e., oil, grease, gasoline, solvent) into the Trinity River, and could temporarily degrade a municipal or domestic water supply. Construction activities will be staged to minimize potential water quality effects, and appropriate measures to minimize impacts to water quality will be implemented. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Stormwater runoff and subsequent potential for erosion associated with construction and implementation of Alternative 2 would be increased to some extent due to the increased width of the bridge and associated roadway under public ownership. The surface of Salt Flat Road will be designed to minimize runoff, and erosion protection measures will be implemented.

Biggers Road. Increased turbidity associated with construction of Alternative 1 could potentially be greater than the Proposed Action due to construction of the retaining wall and additional roadway improvements.

FISHERY RESOURCES

Fishery resources include fish populations, their habitats, and the harvest of those populations. **Section 3.6** discusses the existing environment within the Trinity River Basin in both a regional and site-specific context, with regard to native anadromous fish and resident native and non-native fish. The Project-specific information contained in this section is a detailed summary of the information contained in the Biological Assessment (BA) (**Appendix F**) that was prepared for the Project.

The native anadromous salmonid species of interest in the mainstem Trinity River and its tributaries include chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), and steelhead (*Oncorhynchus mykiss irideus)*. Of the three species, there are two spawning races of chinook salmon (spring- and fall-run) and three

spawning races of steelhead (fall-, winter-, and summer-run). Native non-salmonid anadromous species of concern in the Trinity River Basin include Pacific lamprey (*Lampetra tridentata*) and green sturgeon (*Acipenser medirostris*); although, green sturgeon do not occur as far up river as where the bridge projects are located. Potential impacts to these resources resulting from any of the action alternatives at Salt Flat, Poker Bar, and Biggers Road would be localized and temporary. These impacts include effects on potential spawning and rearing habitat for anadromous fishes, including federally listed coho salmon, increased erosion and sedimentation, mortality of rearing fishes during the in-stream construction phase, and permanent and temporary loss of shaded riverine aquatic (SRA) habitat. Fish passage could be temporarily impaired under all action alternatives at Salt Flat and Biggers Road. Finally, construction-related accidental spills of hazardous materials that could adversely affect fishes, including federally listed coho salmon, could occur under any action alternatives at all four bridge sites. Measures to mitigate these potential impacts to a less-than-significant level have been identified and will be fully implemented.

Under the No-Action Alternative, there would be no effects on fishery resources other than those associated with current ongoing actions. However, under the No-Action Alternative, benefits at each bridge site including the wider flow area and associated reduced backwater elevations, water velocities, and scour depths would not be realized.

Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Implementation of Alternative 2 will result in some additional temporary and permanent construction-related impacts to riparian, SRA, and riverine habitats given the larger footprint for this alternative.

Bucktail. No permanent adverse effects to spawning habitat, rearing habitat, or passage for anadromous fishes, increased levels of erosion and/or sedimentation in the main river channel, or construction-related mortality of rearing fishes are expected at the Bucktail Bridge site since the Proposed Action does not require any work within the active low-flow channel.

Poker Bar. The Proposed Action and Alternative 1 would result in similar impacts to fishery resources and fish habitats, the only difference between alternatives being the alignment of the new bridges with respect to the existing bridge.

Biggers Road. Implementation of Alternative 1 would result in some additional temporary and permanent construction-related impacts to riparian and SRA habitats given work required to raise the Steel Bridge Road associated with this alternative.

VEGETATION, WILDLIFE, AND WETLANDS

Section 3.7 analyzes the potential vegetation, wildlife, and wetlands impacts resulting from construction and operation of the proposed Project. The No-Action Alternative would not result in impacts to vegetation, wildlife, or wetlands. The action alternatives have the potential to impact the following wildlife species with potential to occur in the Project study area: nesting raptors (i.e., Cooper's hawk, sharp-shinned hawk), yellow warbler, yellow-breasted chat, little willow flycatcher, yellow-legged frog, northwestern pond turtle, and cliff swallows. In addition, nine BLM Sensitive wildlife species could potentially occur at any of the four bridge sites (foothill yellow-legged frog, golden eagle, Pacific fisher, Pale Townsend's big-eared bat, small-footed myotis, long-eared myotis, fringed myotis, long-legged myotis, and Yuma myotis bats). Measures to mitigate impacts to each of the species to less than significant

levels will be fully implemented at all four bridge sites. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Temporary impacts to jurisdictional waters (including wetlands) at the Salt Flat site would be greatest under Alternative 2 (0.677 acre), and smallest under the Proposed Action (0.575 acre), while permanent impacts would be greatest under the Proposed Action (0.057 acre) and smallest under Alternative 1 (0.041 acre). Although suitable nesting, roosting, and foraging habitat for northern spotted owl is not located in the Project study area, suitable dispersal habitat is located in a small area on the right (west) side of Salt Flat Bridge.

Bucktail. Temporary and permanent impacts to jurisdictional waters (including wetlands) at the Bucktail site would be greater under the Proposed Action (0.297 acre temporary, 0.003 acre permanent) than under Alternative 1 (0.177 acre temporary, 0.002 acre permanent). Construction-related impacts to foothill yellow-legged frog associated with Alternative 1 would be greater than the Proposed Action due to the proximity of Alternative 1 construction to suitable foothill yellow-legged frog habitat.

Poker Bar. Temporary and permanent impacts to jurisdictional waters (including wetlands) at the Poker Bar site would be greater under the Proposed Action (0.364 acre temporary, 0.055 acre permanent) than under Alternative 1 (0.313 acre temporary, 0.04 acre permanent). Although suitable nesting, roosting, and foraging habitat for the northern spotted owl is not located in the Project study area, suitable dispersal habitat is located on the west side of the Poker Bar Bridges.

Biggers Road. Temporary impacts to jurisdictional waters (including wetlands) at the Biggers Road site would be greater under Alternative 1 (0.479 acre temporary) than under the Proposed Action (0.467 acre temporary); both action alternatives would permanently impact 0.058 acre. Construction-related impacts to active raptor nests, nesting individuals of yellow warbler and yellow-breasted chat, and little willow flycatcher associated with Alternative 1 would be similar to the Proposed Action, although the potential for impacting these species is greater due to the removal of larger quantities of riparian habitat for retaining wall construction. Construction-related impacts to foothill yellow-legged frog and northwestern pond turtle associated with Alternative 1 would be greater than the Proposed Action due to the roadway improvements associated with this alternative. Although suitable nesting, roosting, and foraging habitat for the northern spotted owl is not located in the Project study area, suitable dispersal habitat is located on the southwest side of Biggers Road Bridge.

RECREATION

Recreation related impacts were assessed by identifying recreational resources (parks and recreation facilities) in or near the Project area, and qualitatively determining whether the construction, operation, and/or maintenance of the proposed Project would have any effect on these resources (**Section 3.8**). In addition to evaluating the effects on recreation opportunities, uses and benefits, the Project was evaluated for consistency with Trinity County recreation objectives and both federal and state Wild and Scenic River designations. The WSRA Section 7 Determination for this Project is included as **Appendix G**.

The No-Action Alternative would have no recreation impacts; however, the potential benefits to long-term recreational safety (i.e., fewer piers in river channel, increased bridge deck elevation) would not be realized. Implementation of any action alternative will result in heavy equipment activity and construction vehicle traffic

within and directly adjacent to the Trinity River, which could distract and /or result in potential harm to recreational users (i.e., boaters, anglers, swimmers). Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River to warn recreational users of the potential safety hazards associated with Project construction activities. Public notification of proposed Project construction activities and associated safety hazards will be circulated in the local newspaper at least two weeks prior to the start of construction activities. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Bucktail. Construction activities associated with the Proposed Action may result in reduced access to the Trinity River for anglers and other recreational users and could temporarily limit parking and access to the river for recreational activities. Under Alternative 1, access to popular fishing points (i.e., Bucktail Hole) would not be affected and short-term parking disruptions are not anticipated since there are no roadway or culvert improvements associated with this alternative.

Biggers Road. Construction-related disruption of recreation activities associated with Alternative 1 would be greater than the Proposed Action. Raising Steel Bridge Road and construction of a retaining wall is anticipated to require intermittent daily road closures during construction, which would disrupt public use of the Steel Bridge campground and day-use area located upstream.

SOCIOECONOMICS, POPULATION, AND HOUSING

As discussed in **Section 3.9**, Trinity County was determined to be the area of potential effect due to the Project's overall size and its location. Potential Project effects associated with employment and income, population growth, displacement, and community disruption impacts, as well as any potential plan conflict, were qualitatively analyzed. For NEPA purposes, a threshold of ten percent was used to determine employment and income changes, because changes exceeding ten percent may have a regional effect.

The No-Action Alternative would not impact socioeconomics, population, or housing in Trinity County. Construction associated with the action alternatives would generate temporary construction-related employment in Trinity County. The number of design, construction, and clerical positions required to complete the Project is undetermined, but is expected to add a small percentage to existing local jobs. Employment would only last during the estimated 220-day construction period. In addition, the Project would provide direct local employment opportunities only if workers are hired from the local labor force.

The Project could directly generate short-term income growth through the payment of wages and salaries, but would result in little increased long-term economic activity. A short-term increase in the demand for housing in the County could occur as a result of construction workers seeking lodging during the construction period.

TRIBAL TRUST

Section 3.10 discusses Tribal Trust Assets as they pertain to this Project. The need to restore and maintain the natural production of anadromous fish in the Trinity River mainstem originates partly from the federal government's trust responsibility to protect the fishery resources of the region's Indian tribes. The proposed Project could potentially impact anadromous fish, non-anadromous fish, water, wildlife, vegetation, and overall riverine health. These impacts could consequently affect the sociocultures and economies of the tribes. The No-Action Alternative would not impact Tribal Trust Assets. Construction-related impacts to Tribal Trust Resources are expected to be short-term and

outweighed by the overall benefits to these Tribal Trust Resources through implementation of the Trinity River Restoration Program.

CULTURAL RESOURCES

Section 3.11 focuses the evaluation of cultural resources on the Trinity River Basin. Activities proposed to occur at each of the four Project locations were evaluated to determine how cultural resources within the Trinity River Basin might be impacted. Impacts on archaeological resources are considered significant if implementation of the proposed Project would potentially disturb unique archaeological resources.

The records search conducted for this Project indicates the presence of historic and prehistoric cultural resource sites along the Trinity River. No cultural resource sites were identified within the Project Area of Potential Effect (APE), and potential archaeological resources have not been observed or recorded within the Project APE. However, buried archaeological resources that have not been previously recorded may be uncovered during construction, particularly during ground-disturbing activities. Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. Upon discovery of buried cultural materials or human remains, work within 50 feet of the find shall be halted and the proper agency contacted.

AIR QUALITY

Section 3.12 evaluates the air quality effects associated with construction and operation of the proposed Project. The air quality analysis was conducted qualitatively by assessing anticipated construction-related impacts of the Project and comparing them to existing and anticipated future air quality conditions. The results are compared to standards provided by the North Coast Unified Air Quality Management District (NCUAQMD).

Implementation of the No-Action Alternative would not adversely impact air quality. Construction associated with the proposed Project requires the use of construction equipment that temporarily contributes to air pollution in the Trinity River Basin area in the form of ozone precursors and particulate matter (PM_{10}). Exhaust emissions given off by heavy equipment during construction may contribute to ozone (O_3) non-attainment levels. Dust emissions would primarily be associated with land clearing, excavation and fill of materials, and equipment travel on unpaved road surfaces. The BOR will include provisions in the construction bid documents that the contractor will implement a dust control program to limit fugitive dust and PM_{10} emissions. Project construction activities would also generate emissions from diesel- and gasoline-powered equipment and vehicles. Since the Project would take place over at least a two-year period, emissions from the construction equipment are of concern to the NCUAQMD. Diesel particulate is an identified Hazardous Air Pollutant (HAP) and Toxic Air Contaminant (TAC), emissions of which should be minimized. In this regard, the length of the construction period will require the contractor to comply with NCUAQMD Rule 420 (Particulate Matter) or use portable internal combustion engines registered and certified under the state portable equipment regulation. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Generation of fugitive dust and associated particulate matter levels associated with construction of Alternatives 1 and 2 could be slightly greater than the Proposed Action due to the greater amount of earthwork required to construct a new approach roadway and new bridge upstream of the existing structure.

Bucktail. Generation of fugitive dust and associated particulate matter levels associated with construction of Alternative 1 could be slightly less than the Proposed Action due to the lack of roadway and culvert work associated with this alternative.

Biggers Road. Generation of fugitive dust and associated PM_{10} levels associated with construction of Alternative 1 could be greater than the Proposed Action because of the additional roadway improvements (raising Steel Bridge Road) associated with this alternative. Similarly, construction vehicle exhaust emissions could be also greater under Alternative 1.

ENVIRONMENTAL JUSTICE

Section 3.13 discusses environmental justice as it pertains to the proposed Project. Federal agencies are required to identify and address disproportionately high and adverse human health or environmental effects of their actions on minorities and low-income populations and communities, as well as the equity of the distribution of the benefits and risks of their decisions. No racial or ethnic group is disproportionately associated with the Project study area. There is no evidence to suggest that this Project would cause a disproportionately high, adverse human health or environmental effect on minority and low-income populations, compared to other residents in the Project corridor[s] and other Trinity County residents.

AESTHETICS

Section 3.14 addresses aesthetic issues related to construction and operation of the proposed Project, including the Project conformance with the WSRA. The analysis in this section is based in part on Appendix G of the *CEQA Guidelines*, which is a sample Initial Study (IS) Checklist that includes a number of questions relating to potential aesthetic effects, and in part on professional judgment. This is a qualitative assessment that evaluates the proposed bridges in relation to the local aesthetic context. The WSRA Section 7 Determination for this Project is included as **Appendix G.**

Under the No-Action Alternative, no impacts to aesthetics or visual resources would occur. The No-Action Alternative will not be inconsistent with the federal and/or state WSRA requirements. Under the action alternatives, removal of riparian vegetation to allow for construction access could result in short-term decreased visual quality.

Construction could result in long-term visual impacts to key viewing areas; specifically, views from adjacent residences will change based on the location of proposed structures (i.e., new bridge could appear further away or closer). Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. The Proposed Action may result in a short-term, temporary increase in nighttime lighting (6 PM to 10 PM) if double-shifting construction will be employed to comply with seasonal restrictions associated with work within the Trinity River channel. This double shifting would be limited to the fall and winter of 2003-2004 construction period. Stationary nighttime light sources, if utilized, shall be directed in such a way that minimizes light shining directly into adjacent residential areas and/or individual residences.

Bucktail. Long-term visual impacts are not anticipated under Alternative 1.

HAZARDOUS MATERIALS

Section 3.15 provides an evaluation of the types of hazardous materials that may currently be present within the Project study area, as well as potential hazardous materials that may be introduced to the Project study area as a result of implementing the proposed Project. Detailed site investigations were conducted in 2003 at each of the four Project sites to document any known hazardous substances. Potential hazardous materials impacts were assessed by analyzing the construction, operation, and maintenance activities required for the Project and determining the risks associated with these activities.

The No-Action Alternative is not anticipated to uncover or introduce hazardous materials, adversely impact public health or safety, or inhibit evacuations in the event of an emergency in the Project area. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. The Salt Flat site contains the following potentially hazardous materials: lead-based paint, treated wood timbers that contain total recoverable petroleum hydrocarbons (TRPHs), and contaminated soils at each bridge footing. Specific safety practices, demolition procedures, and waste removal and disposal practices will be stringently followed for each of these potentially hazardous materials.

Bucktail. The Bucktail site does not contain any potentially hazardous materials. Construction activities at the site would not expose potentially hazardous materials that would pose a public hazard.

Poker Bar. The Poker Bar site contains the following potentially hazardous materials: lead-based paint, treated wood timbers that contain TRPHs, old asphalt also containing TRPHs, and contaminated soils at each bridge footing. Specific safety practices, demolition procedures, and waste removal and disposal practices will be stringently followed for each of these potentially hazardous materials.

Biggers Road. The Biggers Road site supports the following potentially hazardous materials: lead-based paint, treated wood timbers that contain TRPHs, and contaminated soils at each bridge footing. Specific safety practices, demolition procedures, and waste removal and disposal practices will be stringently followed for each of these potentially hazardous materials.

NOISE

The regional and local noise environment is described in **Section 3.16**. Noise is not considered to be a problem in Trinity County. Sources of noise in Trinity County include highway traffic, sawmills, airports (light planes), and other miscellaneous residential, commercial, and industrial sources. A community noise survey conducted in 2002 (Brown-Buntin 2002) indicates that existing noise levels in the Project area are typical of small communities and rural areas. Since the proposed Project would not result in a noticeable increase in traffic volume, the focus of this impact analysis was construction noise.

No adverse noise impacts will occur as a result of the No-Action Alternative. Construction activities associated with action alternatives would generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet. Construction activities would be temporary in nature, typically occurring during normal working hours. Construction impacts will be similar for each Project alternative – the primary difference is the distance from each sensitive receptor to each

Project alternative. Noise monitoring shall be conducted at approved locations. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. No sensitive receptors are located within 50 feet of the Proposed Action construction limit or nearest access road. No sensitive receptors are located within 100 feet of the construction limit or nearest access road associated with Alternatives 1 and 2. Nighttime construction at the Salt Flat site (6 PM to 10 PM, Monday through Saturday) could result in annoyance or sleep disruption for nearby residences. No construction activities would occur on Sundays.

Bucktail. Two sensitive receptors are located within 50 feet of the construction limits of the Proposed Action at the Bucktail site. Temporary noise impacts under Alternative 1 would generally be less than the Proposed Action because the levee work (Alternative 1) would require fewer construction hours than the roadway and culvert improvements (Proposed Action) and because no sensitive receptors are located within 50 feet of the construction limit for Alternative 1 at the Bucktail site.

Poker Bar. No sensitive receptors are located within 100 feet of the Proposed Action construction limit or nearest access road. Under Alternative 1, one sensitive receptor would occur within 100 feet of the construction limits.

Biggers Road. No sensitive receptors are located within 50 feet of the construction limit or nearest access road.

PUBLIC SERVICES AND UTILITIES / ENERGY

Section 3.17 evaluates potential impacts from both the construction and long-term operation of the proposed Project on the following public services and facilities: water supply and distribution; wastewater collection and treatment; law enforcement; solid waste collection and disposal; fire protection; telephone service, electric service, and schools. Additionally, the section addresses potential impacts to energy resources due to substantial or wasteful use of energy resources during Project construction.

The No-Action Alternative would not impact public services or utilities. Construction of the action alternatives would result in the generation of solid waste (i.e., some vegetation, steel, concrete, asphalt rubble, and other construction-related waste), which will be disposed of at approved sites. Construction work and temporary road closures will be staged in a manner that will allow for emergency service provider access. In the event that road/bridge closures would be required during the school year (mid-August through mid-June) these closures will only occur during non-peak hours to avoid disruption of student access to bus service. Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Construction and implementation of the Proposed Action could result in the disruption of a private well and water lines and a service well located south of the western abutment. Under Alternative 1, the private well and associated service line along the north edge of Salt Flat Road may need to be relocated. These impacts are also addressed in **Section 3.2**, Land Use. The quantity of waste generated from implementation of Alternative 1 would be similar to the Proposed Action, with the exception that additional vegetation would be removed and require disposal under Alternative 1.

Bucktail. The quantity of waste generated from implementation of Alternative 1 would be much less than the Proposed Action because no roadway or culvert improvements will take place under Alternative 1. Temporary

closures of Browns Mountain Road are not anticipated under Alternative 1; therefore, no construction-related decrease in emergency vehicle response time is anticipated to result from implementation of this alternative.

Biggers Road. The quantity of waste generated from implementation of Alternative 1 would be similar to the Proposed Action, with the exception that additional vegetation would be removed and require disposal under Alternative 1.

TRANSPORTATION / TRAFFIC CIRCULATION

Section 3.18 addresses transportation and traffic issues related to construction and operation of the proposed Project. Traffic impacts were qualitatively assessed based on several components including the construction procedures and equipment that will be utilized, local transportation policies, site review of existing conditions, and the level of traffic on the key roadways. The No-Action Alternative is not anticipated to adversely impact traffic flow in the Project area.

One lane of traffic will be maintained along local roads and across the existing bridges whenever possible, although there may be a need to temporarily close the roads and/or bridges (i.e., to accommodate construction access and delivery of materials to the site, and during construction of the new road alignment and/or bridge abutments). Adequate passage of traffic through the construction area would be accommodated in the event of an emergency evacuation, as discussed in **Section 3.15**, Hazardous Materials.

Construction would require a number of truck and worker vehicle trips on area roads leading to and from the construction area (Highway 299, Lewiston Road, Goose Ranch Road, and Salt Flat Road). During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each workday. Traffic control plans will be implemented to address traffic and associated safety concerns, including: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.

The use of heavy construction equipment to transport material to and from the Project work site could affect local road conditions on the designated haul routes by increasing the rate of road wear. Rural roads (i.e., Goose Ranch Road, Brown's Mountain Road, Poker Bar Road, Bridge Road, Biggers Road, and Steel Bridge Road) are generally not built with a pavement thickness that will withstand substantial heavy truck traffic volumes. Pre- and post-construction surveys shall be performed to determine existing roadway conditions and if any damage has occurred during construction. If necessary, roadways will be rehabilitated as described in the Trinity County encroachment permit.

Site-specific impacts and/or impacts specific to a particular action alternative are as follows.

Salt Flat. Safety concerns associated with construction of Alternative 2 would be similar to the Proposed Action and Alternative 1, although this alternative will be constructed to meet Trinity County standards for low-use public roads, including, wider lanes, paved surfaces and a pedestrian shoulder.

Bucktail. Construction activities associated with the Proposed Action could temporarily limit public parking in the Project area and would result in the permanent loss of unimproved parking used by the public to access the river. Alternative parking will be provided on BLM lands located north of Browns Mountain Road and east of the Bucktail Bridge upon Project completion. Short-term parking disruptions are not anticipated under Alternative 1 since there are no roadway or culvert improvements associated with this alternative.

Other Impacts and Commitments

CUMULATIVE IMPACTS

Cumulative impacts are the impacts on the environment that result from the incremental impacts of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or entity under-takes such other actions. State *CEQA Guidelines* and Council on Environmental Quality (CEQ) NEPA regulations require that the cumulative impacts of a proposed project be addressed in the EA/EIR when the cumulative impacts are expected to be signific ant (14 CCR 15130[a], 40CFR 1508.25[a][2]). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

The analysis of cumulative effects in **Chapter 4** addresses cumulative impacts of the proposed Project in general, with no separate analysis for each alternative. It is recognized that the Proposed Action may be implemented in an interactive manner with other concurrent projects. In addition, these other projects may affect the impacts of the Proposed Action.

The cumulative impacts section identifies the related projects through the list approach, based on input from the lead and cooperating agencies. The geographic scope of the area examined for cumulative effects is the Trinity River Corridor between Lewiston Dam and the confluence of the North Fork Trinity River (Helena, CA). The following projects were considered in this section:

- Fish Habitat Management
- Rush Creek Delta Rehabilitation Project
- Supplemental Flow EIS/EIR
- California Coastal Salmonid Restoration Program / Five Counties Salmonid Conservation Program
- Clean Water Action Section 303(d) TMDL Requirements

No adverse potential cumulative impacts are anticipated to result from implementing the proposed Project (including the No-Action Alternative, Proposed Action, and all other Project-build alternatives). In short, the Project as mitigated will benefit, rather than adversely affect, geology, fluvial geomorphology, and soils, water quality, fishery resources, vegetation, wildlife, and wetlands, recreation, tribal trust assets, and traffic/transportation. Thus, far from creating adverse impacts that will compound or exacerbate the adverse impacts of other projects, the proposed Project will contribute to long-term environmental benefits.

GROWTH-INDUCING IMPACTS

Chapter 4 also evaluates the potential for growth that could be induced by implementation of the proposed Project and assesses the level of significance of any expected growth inducement. The Project's potential for growth inducement because of the proposed new bridge structures are discussed for each Project site and for each Project site alternative.

The relationship between growth and a transportation project can be viewed as generally one of facilitating or accommodating planned growth or inducing unplanned growth (Caltrans 1988). Section 15126 (g) of the State *CEQA Guidelines* provides definitions and guidance in determining the growth-inducing impacts of a proposed action.

Specifically, a project is defined to be growth-inducing if it would:

- accelerate the rate of planned growth;
- remove obstacles to population growth;
- tax existing community service facilities; and/or
- foster, promote, or sustain economic or population growth.

Growth itself is not assumed beneficial, detrimental, or insignificant to the environment. If a project is determined to be growth inducing, an evaluation is made to determine if significant impacts on the environment would result from that growth.

Each bridge site was evaluated for growth-inducing impacts by examination of parcel sizes and zoning designation(s), as well as the ability of the existing bridge(s) to accommodate additional land divisions. Parcels that are owned by government agencies or zoned Timberland Production Zone were considered unsuitable for additional development or land divisions.

There are no significant growth-inducing impacts as a result of this Project. In general, all parcels served by the four bridges have been subdivided to their fullest extent possible under existing zoning designations.

Salt Flat Bridge

The Salt Flat Bridge does not meet the requirements of the Trinity County Subdivision Ordinance or the Fire Safe Ordinance to accommodate additional subdivision of parcels. Salt Flat Subdivision is mainly zoned Rural Residential with a minimum parcel size designation of 2.5 to five acres. All of these parcels have been fully sub-divided, and therefore present no potential for development. In addition, many of these parcels fall into Flood Hazard, Scenic Conservation Overlay, or Open Space zoning districts, making further development difficult. The private timberland in the Project area, which might be served by the future proposed Salt Flat Bridge, is zoned for Timberland Production. There will be no growth inducing impacts as a result of this Project.

Bucktail Bridge

As a County bridge and road, Bucktail Bridge already conforms to the requirements of the Trinity County Subdivision Ordinance and the Fire Safe Ordinance. Therefore, the existing bridge is not a constraint to further subdivision of parcels. The area served by Bucktail Bridge is mainly zoned at a Rural Residential, Flood Hazard, and Scenic

Overlay designation and a minimum parcel size of one acre. With one exception, these parcels have been fully subdivided, and present no potential for further development. There are several large private timberland holdings and the use of Bucktail Bridge as a primary access route to these lands already exists.

Poker Bar Bridge

The Poker Bar Bridges currently conform to the requirements of the Trinity County Subdivision Ordinance and the Fire Safe Ordinance. Therefore, the existing bridges are not a constraint to further subdivision of parcels. The area served by Poker Bar Bridge is mainly residential with a minimum parcel size designation of five acres. Again, most of these parcels have been fully sub-divided, or portions fall into Flood Hazard and Scenic Conservation zoning districts, therefore presenting no potential for further development. The 390 acres of private timberland in the Project area are zoned for Timberland Production. There will be no growth inducing impacts as a result of this Project.

Biggers Road Bridge

The Biggers Road Bridge does not meet the requirements of the Trinity County Subdivision Ordinance or the Fire Safe Ordinance to accommodate additional subdivision of parcels. The parcels served by Biggers Road Bridge are zoned at a Rural Residential designation and a minimum parcel size of five acres. Located directly adjacent to the river, portions of most of these parcels also fall into Flood Hazard and Scenic Conservation zoning districts. The parcels served by the bridge have been fully sub-divided to their maximum extent, and present no opportunity for further development. There will be no growth inducing impacts as a result of this Project.

Consultation and Coordination

Chapter 5 summarizes the scoping process, consultation, coordination, and applicable laws, policies, and regulations used to develop the EA/Draft EIR. The co-lead agencies for the EA/Draft EIR (the BOR and the BLM, as defined by NEPA, and Trinity County, as defined by CEQA) are identified, and the primary cooperating (NEPA), responsible and trustee (CEQA) agencies listed.

A summary of the public scoping process that has been completed to date and a list of agencies, groups, and individuals providing comments and/or comment letters on the NOP that was circulated in April 2002 are listed. In addition, a list of agencies and organizations consulted during the preparation of the environmental document; a list of the related laws, rules, regulations, and federal executive orders that were considered in the preparation of this EA/Draft EIR; and a discussion of how this EA/Draft EIR is consistent with the federal (NEPA) and state (CEQA) statutes are included in **Chapter 5**. Finally, **Chapter 5** includes a summary of the various discretionary approval processes that have been completed or are still being coordinated concurrent with the NEPA/CEQA environmental review process and a summary of governing laws for which a consistency determination will need to be made.

Environmental Commitments and Mitigation Measures

Tables ES-1 through ES-4 present impacts and potential mitigation measures for each environmental topic (i.e., Land Use, Water Quality, etc.) by Project site (Salt Flat, Bucktail, Poker Bar, and Biggers Road).

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.2 LAND USE			
Impact 3.2-1	**Construction of the proposed Project could temporarily disrupt existing land uses adjacent to the project site.**		
Mitigation Measures	**SF-1a:** The BOR shall clearly identify all private wells and associated service lines, construction staging areas and potential access routes on the final design drawings. **SF-1b:** Prior to the start of construction, the BOR shall meet with owners of the private well facilities (i.e., Bonk and Heinsohn) to ensure and coordinate potential well and/or service line relocation efforts. The coordination should include, at a minimum, agreement on the following: new site to relocate affected facility; schedule to implement the relocation effort; and identification of any interim water supply measures (i.e., truck in water). The BOR shall be responsible for all costs associated with completing these efforts. **SF-1c:** Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. **SF-1d:** During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.	**SF-1a:** The BOR shall clearly identify all private wells and associated service lines, construction staging areas and potential access routes on the final design drawings. **SF-1b:** Prior to the start of construction, the BOR shall meet with owners of the private well facilities (i.e., Bonk and Heinsohn) to ensure and coordinate potential well and/or service line relocation efforts. The coordination should include, at a minimum, agreement on the following: new site to relocate affected facility; schedule to implement the relocation effort; and identification of any interim water supply measures (i.e., truck in water). The BOR shall be responsible for all costs associated with completing these efforts. **SF-1c:** Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. **SF-1d:** During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.	**SF-1a:** The BOR shall clearly identify all private wells and associated service lines, construction staging areas and potential access routes on the final design drawings. **SF-1b:** Prior to the start of construction, the BOR shall meet with owners of the private well facilities (i.e., Bonk) to ensure and coordinate potential well and/or service line relocation efforts. The coordination should include, at a minimum, agreement on the following: new site to relocate affected facility; schedule to implement the relocation effort; and identification of any interim water supply measures (i.e., truck in water). The BOR shall be responsible for all costs associated with completing these efforts. **SF-1c:** Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. **SF-1d:** During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.2-2	**Future operation of the proposed Project could disrupt existing land uses adjacent to the project site.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	**SF-2a:** Following construction of the new bridge, the BOR, in coordination with the BLM and the County, shall post signs on both sides of the bridge that prohibit parking along the bridge and roadway on private lands. **SF-2b:** Following construction of the new bridge, the BOR, in coordination with the BLM and the County, shall develop a facility to accommodate increased public access. At a minimum, a public restroom, parking, and trash collection facility will be installed.
Level of Significance After Mitigation	N/A	N/A	Significant Unavoidable (for CEQA) Less than Significant (for NEPA)
Impact 3.2-3	**Construction of the proposed Project would result in the conversion of a small portion of vacant land to a new facility.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.2-4	**Implementation of the proposed Project may be inconsistent with the goals, policies, and objectives of the Trinity County General Plan, as well as the local community plans, policies, and ordinances.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.3 GEOLOGY, FLUVIAL GEOMORPHOLOGY, AND SOILS			
Impact 3.3-1	**Implementation of the proposed Project could result in the exposure of structures and people to geologic hazards including ground shaking and liquefaction.**		
Mitigation Measures	**SF-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more of the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **SF-1b:** Final design of the bridge shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction.	**SF-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more of the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **SF-1b:** Final design of the bridge shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction.	**SF-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more of the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **SF-1b:** Final design of the bridge shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.3-2	**Construction activities associated with the proposed Project could potentially result in increased erosion and associated sedimentation of the Trinity River.**		
Mitigation Measures	**SF-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities.	**SF-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities.	**SF-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **SF-2b:** The Contractor shall prepare an erosion and sedimentation control plan. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible. Salvage, store, and use the highest quality soil for revegetation. Discourage noxious weed competition and control noxious weeds. Clear steep slopes immediately prior to scheduled construction. Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff. Cease topsoil stripping activities during significantly wet or windy weather. For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used. Use bales and/or silt fencing as appropriate. Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic. Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.	Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **SF-2b:** The Contractor shall prepare an erosion and sedimentation control plan. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible. Salvage, store, and use the highest quality soil for revegetation. Discourage noxious weed competition and control noxious weeds. Clear steep slopes immediately prior to scheduled construction. Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff. Cease topsoil stripping activities during significantly wet or windy weather. For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used. Use bales and/or silt fencing as appropriate. Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic. Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.	Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **SF-2b:** The Contractor shall prepare an erosion and sedimentation control plan. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible. Salvage, store, and use the highest quality soil for revegetation. Discourage noxious weed competition and control noxious weeds. Clear steep slopes immediately prior to scheduled construction. Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff. Cease topsoil stripping activities during significantly wet or windy weather. For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used. Use bales and/or silt fencing as appropriate. Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic. Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.	Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.	Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.3-3	**Implementation of the proposed Project would be inconsistent with the ten Trinity River healthy river attributes.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.4 WATER RESOURCES			
Impact 3.4-1	**Implementation of the proposed Project could result in a permanent increase in base floodwater surface elevation.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.4-2	**Construction activities associated with the Project could result in a temporary increase in base floodwater surface elevation.**		
Mitigation Measures	**SF-2a:** Any construction activities proposed within the active low-flow channel elevation of the Trinity River (excluding passive vegetation removal activities above ground level) shall be restricted to June 15th to September 15th, except for the first construction season, when in-water work will take place during the fall and winter of 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period). **SF-2b:** Construction equipment and materials shall be stored away from surface water features when not in use.	**SF-2a:** Any construction activities proposed within the active low-flow channel elevation of the Trinity River (excluding passive vegetation removal activities above ground level) shall be restricted to June 15th to September 15th, except for the first construction season, when in-water work will take place during the fall and winter of 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period). **SF-2b:** Construction equipment and materials shall be stored away from surface water features when not in use.	**SF-2a:** Any construction activities proposed within the active low-flow channel elevation of the Trinity River (excluding passive vegetation removal activities above ground level) shall be restricted to June 15th to September 15th, except for the first construction season, when in-water work will take place during the fall and winter of 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period). **SF-2b:** Construction equipment and materials shall be stored away from surface water features when not in use.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.4-3	**Construction and implementation of the Project may necessitate the relocation of one or more private wells.**		
Mitigation Measures	Implement Mitigation Measures (Proposed Action, Alternative 1) SF-1a-1d from Section 3.2, Land Use.	Implement Mitigation Measures (Proposed Action, Alternative 1) SF-1a-1d from Section 3.2, Land Use.	Implement Mitigation Measures (Alternative 2) SF-1a-1d from Section 3.2, Land Use.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.5 WATER QUALITY			
Impact 3.5-1	**Construction of the proposed Project could result in short-term temporary increases in turbidity and total suspended solids levels during construction.**		
Mitigation Measures	**SF-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **SF-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., placement of gravel for temporary crossing, drilling for bent placement, bridge removal, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives.	**SF-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **SF-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., placement of gravel for temporary crossing, drilling for bent placement, bridge removal, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives.	**SF-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **SF-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., placement of gravel for temporary crossing, drilling for bent placement, bridge removal, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-1c: Contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.	**SF-1c:** Contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.	**SF-1c:** Contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.5-2	**Construction of the proposed Project could potentially cause contamination of the Trinity River from hazardous materials spills.**		
Mitigation Measures	**SF-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **SF-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option.	**SF-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **SF-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option.	**SF-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **SF-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option.

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	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-2c: The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	**SF-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	**SF-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.5-3	**Operation of the Project would result in increased pollutant loads from bridges/roadway runoff into the Trinity River.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.5-4	**Construction and operation of the Project could result in increased stormwater runoff and subsequent potential for erosion.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.5-5	**Construction and operation of the Project could result in the degradation of Trinity River beneficial uses identified in the Basin Plan.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.6 FISHERY RESOURCES			
Impact 3.6-1	**Construction activities associated with the proposed Project could result in effects on potential spawning and rearing habitat for anadromous fishes, including federally listed coho salmon.**		
Mitigation Measures	**SF-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to rearing juvenile and adult salmonids. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period) during the first year of construction to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-1b:** Disturbance of LWD shall be avoided when possible. LWD necessarily removed from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist. **SF-1c:** Slope protection for road approaches and bridge abutments extending into the channel or that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **SF-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminants such as petroleum products.	**SF-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to rearing juvenile and adult salmonids. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period) during the first year of construction to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-1b:** Disturbance of LWD shall be avoided when possible. LWD necessarily removed from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist. **SF-1c:** Slope protection for road approaches and bridge abutments extending into the channel or that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **SF-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminants such as petroleum products.	**SF-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to rearing juvenile and adult salmonids. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15 to September 15 dry season in-river construction period) during the first year of construction to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-1b:** Disturbance of LWD shall be avoided when possible. LWD necessarily removed from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist. **SF-1c:** Slope protection for road approaches and bridge abutments extending into the channel or that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **SF-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity Basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminants such as petroleum products.

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	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **SF-1e:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area. **SF-1f:** The moderate depth run and pool habitat within the active low flow channel adjacent to the right bank abutment of the new bridge will be encroached by placement of riprap revetment. Engineered riprap is designed with a geotextile filter fabric underlayment. The purpose of this material is to keep fine sediment from migrating out from the toe of riprap. Riprap shall be composed only of appropriately sized, clean, shot rock or boulder material. **SF-1g:** The temporary side-channel crossing shall be located to minimize channel changes and the amount of excavation or fill needed for construction. Fill shall be formed from washed, spawning-sized gravel, between ? - and four inches in diameter (Pollock 1969; Bell 1986). When use of this temporary crossing is completed, any fill shall be spread and contoured to match the original side-channel streambed and banks.	Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **SF-1e:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area. **SF-1f:** The moderate depth run and pool habitat within the active low flow channel adjacent to the right bank abutment of the new bridge will be encroached by placement of riprap revetment. Engineered riprap is designed with a geotextile filter fabric underlayment. The purpose of this material is to keep fine sediment from migrating out from the toe of riprap. Riprap shall be composed only of appropriately sized, clean, shot rock or boulder material. **SF-1g:** The temporary side-channel crossing shall be located to minimize channel changes and the amount of excavation or fill needed for construction. Fill shall be formed from washed, spawning-sized gravel, between ? - and four inches in diameter (Pollock 1969; Bell 1986). When use of this temporary crossing is completed, any fill shall be spread and contoured to match the original side-channel streambed and banks.	Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **SF-1e:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area. **SF-1f:** The moderate depth run and pool habitat within the active low flow channel adjacent to the right bank abutment of the new bridge will be encroached by placement of riprap revetment. Engineered riprap is designed with a geotextile filter fabric underlayment. The purpose of this material is to keep fine sediment from migrating out from the toe of riprap. Riprap shall be composed only of appropriately sized, clean, shot rock or boulder material. **SF-1g:** The temporary side-channel crossing shall be located to minimize channel changes and the amount of excavation or fill needed for construction. Fill shall be formed from washed, spawning-sized gravel, between ? - and four inches in diameter (Pollock 1969; Bell 1986). When use of this temporary crossing is completed, any fill shall be spread and contoured to match the original side-channel streambed and banks.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-1h: Fill material used to construct the working platforms for removal of the existing bridge's mid-channel piers shall be formed from washed, spawning-sized gravel, between ? - and four inches in diameter. This material will be graded to match natural streambed and bank contours at the site after completion of work. It is anticipated that each of these work platforms will be in place for up to seven days. **SF-1i:** Because the proposed construction schedule includes in-river work that could impact spawning spring- and fall-run chinook salmon, coho salmon, and steelhead or their eggs once in the gravel, anti-spawning mats (heavy-gauge wire fencing secured over streambed gravels) will be installed in areas identified as potential spawning sites within the immediate vicinity of the side-channel crossing and single mid-channel bent. Anti-spawning mats will be installed prior to the beginning of spawning (i.e., on/or before September 1).	**SF-1h:** Fill material used to construct the working platforms for removal of the existing bridge's mid-channel piers shall be formed from washed, spawning-sized gravel, between ? - and four inches in diameter. This material will be graded to match natural streambed and bank contours at the site after completion of work. It is anticipated that each of these work platforms will be in place for up to seven days. **SF-1i:** Because the proposed construction schedule includes in-river work that could impact spawning spring- and fall-run chinook salmon, coho salmon, and steelhead or their eggs once in the gravel, anti-spawning mats (heavy-gauge wire fencing secured over streambed gravels) will be installed in areas identified as potential spawning sites within the immediate vicinity of the side-channel crossing and single mid-channel bent. Anti-spawning mats will be installed prior to the beginning of spawning (i.e., on/or before September 1).	**SF-1h:** Fill material used to construct the working platforms for removal of the existing bridge's mid-channel piers shall be formed from washed, spawning-sized gravel, between ? - and four inches in diameter. This material will be graded to match natural streambed and bank contours at the site after completion of work. It is anticipated that each of these work platforms will be in place for up to seven days. **SF-1i:** Because the proposed construction schedule includes in-river work that could impact spawning spring- and fall-run chinook salmon, coho salmon, and steelhead or their eggs once in the gravel, anti-spawning mats (heavy-gauge wire fencing secured over streambed gravels) will be installed in areas identified as potential spawning sites within the immediate vicinity of the side-channel crossing and single mid-channel bent. Anti-spawning mats will be installed prior to the beginning of spawning (i.e., on/or before September 1).
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.6-2	**Construction activities associated with the proposed Project could result in increased erosion and sedimentation levels that could adversely affect fishes, including federally listed coho salmon.**		
Mitigation Measures	**SF-2a:** Erosion control work shall consist of application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed (e.g., hydroseeding), commercial fertilizer, and water. **SF-2b** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River.	**SF-2a:** Erosion control work shall consist of application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed (e.g., hydroseeding), commercial fertilizer, and water. **SF-2b** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River.	**SF-2a:** Erosion control work shall consist of application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed (e.g., hydroseeding), commercial fertilizer, and water. **SF-2b** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **SF-2c:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **SF-2d:** Hydroseeding, or other Type-D erosion control, shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **SF-2e:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. **SF-2f:** Spoil sites shall be located such that they do not drain directly into surface water features, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately to allow percolation of effluent through the bottom and the sides rather than overflow. Spoil sites shall be graded and vegetated to reduce the potential for erosion. **SF-2g:** Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated.	If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **SF-2c:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **SF-2d:** Hydroseeding, or other Type-D erosion control, shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **SF-2e:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. 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If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **SF-2c:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **SF-2d:** Hydroseeding, or other Type-D erosion control, shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **SF-2e:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. **SF-2f:** Spoil sites shall be located such that they do not drain directly into surface water features, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately to allow percolation of effluent through the bottom and the sides rather than overflow. Spoil sites shall be graded and vegetated to reduce the potential for erosion. **SF-2g:** Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-2h: Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress. In the event that monitoring detects that turbidity standards are exceeded (see Section 3.5, Water Quality), work shall cease until levels are acceptable.	**SF-2h:** Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress. In the event that monitoring detects that turbidity standards are exceeded (see Section 3.5, Water Quality), work shall cease until levels are acceptable.	**SF-2h:** Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress. In the event that monitoring detects that turbidity standards are exceeded (see Section 3.5, Water Quality), work shall cease until levels are acceptable.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.6-3	**Construction activities associated with the proposed Project could potentially result in the accidental spill of hazardous materials that could adversely affect fishes, including federally listed coho salmon.**		
Mitigation Measures	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **SF-3a:** Equipment and materials shall be stored away from wetland and surface water features. **SF-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **SF-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **SF-3a:** Equipment and materials shall be stored away from wetland and surface water features. **SF-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **SF-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **SF-3a:** Equipment and materials shall be stored away from wetland and surface water features. **SF-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **SF-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-3d: The contractor will develop and implement site-specific best management practices (BMPs), a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).	**SF-3d:** The contractor will develop and implement site-specific best management practices (BMPs), a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).	**SF-3d:** The contractor will develop and implement site-specific best management practices (BMPs), a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.6-4	**Construction activities associated with the proposed Project could result in fish passage being temporarily impaired during the in-stream construction phase.**		
Mitigation Measures	**SF-4a:** To minimize effects on upstream and downstream migrant salmonids and lampreys, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to migrating fishes. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15th to September 15th dry season in-river construction period) to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-4b:** Use of gravel fill in the left side-channel to form a temporary, stable, wet crossing shall be placed to maintain a water depth of approximately one foot at the crossing to minimize impacts to fish movement.	**SF-4a:** To minimize effects on upstream and downstream migrant salmonids and lampreys, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to migrating fishes. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15th to September 15th dry season in-river construction period) to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-4b:** Use of gravel fill in the left side-channel to form a temporary, stable, wet crossing shall be placed to maintain a water depth of approximately one foot at the crossing to minimize impacts to fish movement.	**SF-4a:** To minimize effects on upstream and downstream migrant salmonids and lampreys, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to migrating fishes. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15th to September 15th dry season in-river construction period) to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-4b:** Use of gravel fill in the left side-channel to form a temporary, stable, wet crossing shall be placed to maintain a water depth of approximately one foot at the crossing to minimize impacts to fish movement.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	This depth is typical of shallow riffles in the side channel at river flows of Q = 450 cfs. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. Placement of steel landing mat for the temporary crossing shall be made so that the mat is flush to the streambed, or flush to any necessary fill placed on the streambed. The contractor shall perform daily inspection of the temporary side-channel crossing. Debris accumulations on the steel mat will be removed when observed. **SF-4c:** Use of gravel to form temporary, stable work platforms for removal of the old bridge piers in the main river channel shall be placed to extend across no greater than one-third the wetted channel width to minimize effects on fish migration. This will necessitate removing one pier at a time. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. Each gravel platform will be spread and graded to match existing riverbed contours as demolition work is completed. Work platforms will be constructed and used only during the June 15th to September 15th period. It is anticipated that each of these work platforms will be in place for up to seven days.	This depth is typical of shallow riffles in the side channel at river flows of Q = 450 cfs. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. Placement of steel landing mat for the temporary crossing shall be made so that the mat is flush to the streambed, or flush to any necessary fill placed on the streambed. The contractor shall perform daily inspection of the temporary side-channel crossing. Debris accumulations on the steel mat will be removed when observed. **SF-4c:** Use of gravel to form temporary, stable work platforms for removal of the old bridge piers in the main river channel shall be placed to extend across no greater than one-third the wetted channel width to minimize effects on fish migration. This will necessitate removing one pier at a time. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. Each gravel platform will be spread and graded to match existing riverbed contours as demolition work is completed. Work platforms will be constructed and used only during the June 15th to September 15th period. It is anticipated that each of these work platforms will be in place for up to seven days.	This depth is typical of shallow riffles in the side channel at river flows of Q = 450 cfs. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. Placement of steel landing mat for the temporary crossing shall be made so that the mat is flush to the streambed, or flush to any necessary fill placed on the streambed. The contractor shall perform daily inspection of the temporary side-channel crossing. Debris accumulations on the steel mat will be removed when observed. **SF-4c:** Use of gravel to form temporary, stable work platforms for removal of the old bridge piers in the main river channel shall be placed to extend across no greater than one-third the wetted channel width to minimize effects on fish migration. This will necessitate removing one pier at a time. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. Each gravel platform will be spread and graded to match existing riverbed contours as demolition work is completed. Work platforms will be constructed and used only during the June 15th to September 15th period. It is anticipated that each of these work platforms will be in place for up to seven days.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.6-5	**Construction activities associated with the proposed Project could result in the mortality of adult and juvenile fishes, including federally listed coho salmon, during the in-stream construction phase.**		
Mitigation Measures	**SF-5a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15th to September 15th dry season in-river construction period) to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-5b:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area.	**SF-5a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15th to September 15th dry season in-river construction period) to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-5b:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area.	**SF-5a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather and biological conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. An initial extension to this in-water construction period is requested for the Salt Flat site, where in-water work will take place during the fall/winter 2003-2004 (outside of the June 15th to September 15th dry season in-river construction period) to meet proposed time schedules outlined in Chapter 2. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **SF-5b:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.6-6	**Implementation of the proposed Project would result in the permanent and temporary loss of shaded riverine aquatic habitat.**		
Mitigation Measures	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **SF-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **SF-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible. When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities. The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project.	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **SF-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **SF-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible. When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities. The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project.	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **SF-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **SF-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible. When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities. The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project.

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	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-6c: BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the BA (**Appendix F**). **SF-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR or their contractor shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.	**SF-6c:** BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the BA (**Appendix F**). **SF-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR or their contractor shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.	**SF-6c:** BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the BA (**Appendix F**). **SF-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR or their contractor shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.7 VEGETATION, WILDLIFE, AND WETLANDS			
Impact 3.7-1	**Construction activities associated with the proposed Project would result in the loss of upland plant communities.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.7-2	**Construction of the Project could result in the loss of individuals of a special-status plant species.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.7-3	**Construction activities associated with the proposed Project could result in the loss of jurisdictional wetlands.**		
Mitigation Measures	**SF-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **SF-3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation wthin the Project ESL to the fullest extent feasible.	**SF-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **SF-3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation within the Project ESL to the fullest extent feasible.	**SF-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **SF-3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation within the Project ESL to the fullest extent feasible.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **SF-3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures SF-6a through 6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*	When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **SF-3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures SF-6a through 6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*	When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **SF-3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures SF-6a through 6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.7-4	**Construction activities associated with the proposed Project could disrupt active raptor nests.**		
Mitigation Measures	**SF-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **SF-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**SF-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **SF-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**SF-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **SF-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.7-5	**Construction activities associated with the proposed Project could result in impacts to nesting individuals of yellow warbler and yellow-breasted chat.**		
Mitigation Measures	**SF-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **SF-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**SF-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **SF-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**SF-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **SF-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.7-6	**Construction activitles associated with the proposed Project could result in impacts to northern spotted owl**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.7-7	**Construction activities associated with the proposed Project could result in impacts to little willow flycatcher.**		
Mitigation Measures	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **SF-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **SF-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **SF-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **SF-7b:** All vegetation (i.e., trees, shrubs) that w ill need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **SF-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **SF-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.7-8	**Construction activities associated with the proposed Project could result in impacts to BLM sensitive species and Northwest Forest Plan Survey and Manage species.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.7-9	**Construction activities associated with the proposed Project could result in impacts to foothill yellow-legged frog.**		
Mitigation Measures	**SF-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **SF-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **SF-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **SF-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure SF-3), and will be fully implemented.	**SF-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **SF-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **SF-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **SF-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure SF-3), and will be fully implemented.	**SF-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **SF-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **SF-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **SF-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure SF-3), and will be fully implemented.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.7-10	**Construction activities associated with the proposed Project could result in impacts to northwestern pond turtle.**		
Mitigation Measures	**SF-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **SF-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **SF-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **SF-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure SF-3), and will be fully implemented.	**SF-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **SF-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **SF-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **SF-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure SF-3), and will be fully implemented.	**SF-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **SF-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **SF-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **SF-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure SF-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.7-11	**Construction activities associated with the proposed Project could restrict terrestrial wildlife movement through the Project ESL.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.7-12	**Construction activities associated with the proposed Project could disrupt active swallow nests.**		
Mitigation Measures	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **SF-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access. **SF-12b:** While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects:	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **SF-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access. **SF-12b:** While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects:	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **SF-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access. **SF-12b:** While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects:

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **SF-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.	Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **SF-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.	Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **SF-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.7-13	**Construction activities associated with the proposed Project could result in the loss of bald eagle, golden eagle, and osprey foraging and perching habitat.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.7-14	**Construction activities associated with the proposed Project could result in the disruption of active bat roosts.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.8 RECREATION			
Impact 3.8-1	**Construction activities associated with the proposed Project could disrupt boating, fishing, and swimming activities within the Trinity River.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.8-2	**Construction and operation of the proposed Project could result in an increased safety risk to recreational users.**		
Mitigation Measures	**SF-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two w eeks prior to the start of construction activities.	**SF-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.	**SF-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.8-3	**Construction activities associated with the proposed Project could lower the river reaction aesthetic value by increasing turbidity levels in the Trinity River.**		
Mitigation Measures	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **SF-1a-1d** from Section 3.5, Water Quality.	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **SF-1a-1d** from Section 3.5, Water Quality.	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **SF-1a-1d** from Section 3.5, Water Quality.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.8-4	**Construction activities associated with the proposed Project could reduce or eliminate public access to the Trinity River.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.8-5	**Construction and implementation of the proposed Project could impact Wild and Scenic River values.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.9 SOCIOECONOMICS, POPULATION, AND HOUSING			
Impact 3.9-1	**Bridge construction associated with the Project would provide employment opportunities for construction workers in Trinity County.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.9-2	**Construction and implementation of the Project could result in the disruption or displacement of local businesses.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.9-3	**Bridge construction associated with the Project would result in an increased demand for housing during construction.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.10 TRIBAL TRUST			
Impact 3.10-1	**Implementation of the Project may reduce the quantity or quality of a Tribal Trust Asset.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.11 CULTURAL RESOURCES			
Impact 3.11-1	**Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources.**		
Mitigation Measures	**SF-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.	**SF-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.	**SF-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	SF-1b: If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the Native American Heritage Commission (NAHC) will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.	**SF-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the Native American Heritage Commission (NAHC) will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.	**SF-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the Native American Heritage Commission (NAHC) will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
3.12 AIR QUALITY			
Impact 3.12-1	**Construction activities associated with the proposed Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels.**		
Mitigation Measures	**SF-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily.	**SF-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily.	**SF-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).	Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).	Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
	Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.	Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.	Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success.
	Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.	Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.	Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
	Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.	Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.	Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
	Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.	Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.	Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads.
	Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.	Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.	Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days.
	All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.	All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.	All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD.
	Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.	Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.	Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.
	Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged.	Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged.	Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.	Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.	Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.12-2	**Construction activities associated with the proposed Project could result in an increase in construction vehicle exhaust emissions.**		
Mitigation Measures	**SF-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).	**SF-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).	**SF-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.13 ENVIRONMENTAL JUSTICE			
Impact 3.13-1	**Implementation of the proposed Project could adversely affect a minority or low-income population and/or community.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.14 AESTHETICS			
Impact 3.14-1	**Construction of the new bridge structures for the proposed Project could result in the degradation and/or obstruction of a scenic view from key viewing areas.**		
Mitigation Measures	**SF-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be implemented: Mitigation Measure SF-3a through SF-3d (Replacement of Riparian Vegetation).	**SF-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be implemented: Mitigation Measure SF-3a through SF-3d (Replacement of Riparian Vegetation).	**SF-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be implemented: Mitigation Measure SF-3a through SF-3d (Replacement of Riparian Vegetation).
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.14-2	**Construction of the new bridge structures for the proposed Project could be substantially out of character or disharmonious with existing land uses and aesthetic features.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.14-3	**The proposed Project may be inconsistent with the federal and/or state Wild and Scenic River Act requirements.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.14-4	**The proposed Project may potentially generate increased daytime glare and/or nighttime lighting.**		
Mitigation Measures	Stationary nighttime light sources, if utilized, shall be directed in such a way that minimizes light shining directly into adjacent residential areas and/or individual residences.	Stationary nighttime light sources, if utilized, shall be directed in such a way that minimizes light shining directly into adjacent residential areas and/or individual residences.	Stationary nighttime light sources, if utilized, shall be directed in such a way that minimizes light shining directly into adjacent residential areas and/or individual residences.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
3.15 HAZARDOUS MATERIALS			
Impact 3.15-1	**Construction of the proposed Project may expose potentially hazardous materials that could pose a public hazard.**		
Mitigation Measures	Contaminated Soils **SF-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **SF-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **SF-1c:** The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction).	Contaminated Soils **SF-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **SF-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **SF-1c:** The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction).	Contaminated Soils **SF-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **SF-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **SF-1c:** The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction).

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **SF-1d**: Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **SF-1e**: None of the metal portions of the bridge should be sawed, burned, or sanded except as allowed by 8 CCR 1532. It is anticipated that the bridges will become the property of the contractor. If disposal is required, the bridges shall be disposed of in a properly licensed landfill. Total Recoverable Petroleum Hydrocarbons **SF-1f**: All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility. **SF-1g**: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: Toxicity Characteristic Leaching Procedure (TCLP) Fish Bioassay Testing Semi-volatile Organic Compounds (EPA Method 8270)	The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **SF-1d**: Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **SF-1e**: None of the metal portions of the bridge should be sawed, burned, or sanded except as allowed by 8 CCR 1532. It is anticipated that the bridges will become the property of the contractor. If disposal is required, the bridges shall be disposed of in a properly licensed landfill. Total Recoverable Petroleum Hydrocarbons **SF-1f**: All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility. **SF-1g**: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: Toxicity Characteristic Leaching Procedure (TCLP) Fish Bioassay Testing Semi-volatile Organic Compounds (EPA Method 8270)	The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **SF-1d**: Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **SF-1e**: None of the metal portions of the bridge should be sawed, burned, or sanded except as allowed by 8 CCR 1532. It is anticipated that the bridges will become the property of the contractor. If disposal is required, the bridges shall be disposed of in a properly licensed landfill. Total Recoverable Petroleum Hydrocarbons **SF-1f**: All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility. **SF-1g**: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: Toxicity Characteristic Leaching Procedure (TCLP) Fish Bioassay Testing Semi-volatile Organic Compounds (EPA Method 8270)
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.15-2	**Construction of the proposed Project may increase the potential of public health or safety hazards due to increased risk of upset.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.15-3	**Implementation of the proposed Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.16 NOISE			
Impact 3.16-1	**Construction activities associated with the proposed Project would result in temporary noise impacts to nearby sensitive receptors.**		
Mitigation Measures	**SF-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, except for the in-river construction period when construction would occur between 7:00 AM and 10:00 PM. No construction activities shall be schedule for Sundays or other hours and days, as established by the local jurisdiction (e.g. Trinity County). **SF-1b:** Specifically with regards to the in-river construction period, the BOR shall include the following noise monitoring requirements in the construction specifications: Noise levels from construction activities may exceed the values shown in **Table 3.16-7** between the hours of 7:00 AM and 7:00 PM, Monday through Saturday. Limits described in **Table 3.16-7** will be imposed on Sundays. Noise monitoring shall be conducted at approved locations. Noise monitors shall be located within 50 feet of affected residences.	**SF-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, except for the in-river construction period when construction would occur between 7:00 AM and 10:00 PM. No construction activities shall be schedule for Sundays or other hours and days, as established by the local jurisdiction (e.g. Trinity County). **SF-1b:** Specifically with regards to the in-river construction period, the BOR shall include the following noise monitoring requirements in the construction specifications: Noise levels from construction activities may exceed the values shown in **Table 3.16-7** between the hours of 7:00 AM and 7:00 PM, Monday through Saturday. Limits described in **Table 3.16-7** will be imposed on Sundays. Noise monitoring shall be conducted at approved locations. Noise monitors shall be located within 50 feet of affected residences.	**SF-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, except for the in-river construction period when construction would occur between 7:00 AM and 10:00 PM. No construction activities shall be schedule for Sundays or other hours and days, as established by the local jurisdiction (e.g. Trinity County). **SF-1b:** Specifically with regards to the in-river construction period, the BOR shall include the following noise monitoring requirements in the construction specifications: Noise levels from construction activities may exceed the values shown in **Table 3.16-7** between the hours of 7:00 AM and 7:00 PM, Monday through Saturday. Limits described in **Table 3.16-7** will be imposed on Sundays. Noise monitoring shall be conducted at approved locations. Noise monitors shall be located within 50 feet of affected residences.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
	Microphones should be positioned three to five feet above ground and away from reflective sources. Sound pressure levels shall be measured in decibels with a meter A-weighting network (Unit of measure is dBA; Sound level meter, ANSI A1.4A-1985, Type 1 or Type 2; Use fast response for impulse noise and slow response for other noise measurements). If results of the noise monitoring determine it is necessary, a noise ordinance variance request shall be filed, in coordination with the BOR, to the Trinity County Planning Department noise enforcement officer at P.O. Box 2819, Weaverville, CA 96093. The variance request shall be submitted at 30 days before the variance would be required and include a complete list of measures taken to comply and rationale for why strict compliance is not feasible. **SF-1c:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **SF-1d:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).	Microphones should be positioned three to five feet above ground and away from reflective sources. Sound pressure levels shall be measured in decibels with a meter A-weighting network (Unit of measure is dBA; Sound level meter, ANSI A1.4A-1985, Type 1 or Type 2; Use fast response for impulse noise and slow response for other noise measurements). If results of the noise monitoring determine it is necessary, a noise ordinance variance request shall be filed, in coordination with the BOR, to the Trinity County Planning Department noise enforcement officer at P.O. Box 2819, Weaverville, CA 96093. The variance request shall be submitted at 30 days before the variance would be required and include a complete list of measures taken to comply and rationale for why strict compliance is not feasible. **SF-1c:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **SF-1d:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).	Microphones should be positioned three to five feet above ground and away from reflective sources. Sound pressure levels shall be measured in decibels with a meter A-weighting network (Unit of measure is dBA; Sound level meter, ANSI A1.4A-1985, Type 1 or Type 2; Use fast response for impulse noise and slow response for other noise measurements). If results of the noise monitoring determine it is necessary, a noise ordinance variance request shall be filed, in coordination with the BOR, to the Trinity County Planning Department noise enforcement officer at P.O. Box 2819, Weaverville, CA 96093. The variance request shall be submitted at 30 days before the variance would be required and include a complete list of measures taken to comply and rationale for why strict compliance is not feasible. **SF-1c:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **SF-1d:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
3.17 PUBLIC SERVICES AND UTILITIES / ENERGY			
Impact 3.17-1	**Implementation of the proposed Project could potentially disrupt an existing domestic water supply during the construction phase.**		
Mitigation Measures	**SF-1:** The following mitigation measures from **Section 3.2** (Land Use) shall be fully implemented: Mitigation Measure SF-1a through SF-1d (Well Relocation).	**SF-1:** The following mitigation measures from **Section 3.2** (Land Use) shall be fully implemented: Mitigation Measure SF-1a through SF-1d (Well Relocation).	**SF-1:** The following mitigation measures from **Section 3.2** (Land Use) shall be fully implemented: Mitigation Measure SF-1a through SF-1d (Well Relocation).
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.17-2	**Implementation of the proposed Project could potentially disrupt an existing domestic sewer/septic system during the construction phase.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.17-3	**Implementation of the proposed Project could potentially disrupt existing electrical service during the construction phase.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.17-4	**Implementation of the proposed Project could potentially disrupt telephone service during the construction phase.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.17-5	**Construction of the proposed Project could result in the generation of increased solid waste.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.17-6	**Implementation of the proposed Project could potentially result in decreased response time for police service, fire protection service, and emergency service during the construction phase.**		
Mitigation Measures	**SF-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **SF-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.	**SF-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **SF-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.	**SF-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **SF-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.17-7	**Construction of the proposed Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.17-8	**Construction of the proposed Project could result in a substantial use of nonrenewable energy resources.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
3.18 TRANSPORTATION / TRAFFIC CIRCULATION			
Impact 3.18-1	**Construction of the proposed Project would reduce/close existing traffic lanes.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	Alternative 1 (Replacement Upstream, Private Ownership)	Alternative 2 (Replacement Upstream, Public Ownership)
Impact 3.18-2	**Construction of the proposed Project would generate short-term increases in vehicle trips.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.18-3	**Construction of the proposed Project would affect access to adjacent land uses.**		
Mitigation Measures	**SF-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **SF-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.	**SF-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **SF-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.	**SF-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **SF-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.18-4	**Construction of the proposed Project would increase local roadway wear-and-tear.**		
Mitigation Measures	**SF-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Goose Ranch Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **SF-4b** A post-construction survey of Goose Ranch Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction.	**SF-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Goose Ranch Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **SF-4b** A post-construction survey of Goose Ranch Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction.	**SF-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Goose Ranch Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **SF-4b** A post-construction survey of Goose Ranch Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES – SALT FLAT

	Proposed Action (Replacement Downstream, Private Ownership)	**Alternative 1 (Replacement Upstream, Private Ownership)**	**Alternative 2 (Replacement Upstream, Public Ownership)**
	If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.	If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.	If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant
Impact 3.18-5	**Construction of the proposed Project could result in the loss of available public parking.**		
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A	N/A
Impact 3.18-6	**Construction of the proposed Project could pose a safety hazard to motorists, bicyclists, and pedestrians.**		
Mitigation Measures	**SF-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.	**SF-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.	**SF-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant	Less than Significant

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
3.2 LAND USE		
Impact 3.2-1	**Construction of the proposed Project could temporarily disrupt existing land uses adjacent to the project site.**	
Mitigation Measures	**BT-1a:** The BOR shall clearly identify all construction staging areas and potential access routes on the final design drawings. **BT-1b:** Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. **BT-1c:** During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.	**BT-1a:** The BOR shall clearly identify all construction staging areas and potential access routes on the final design drawings. **BT-1b:** Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. **BT-1c:** During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.2-2	**Future operation of the proposed Project could disrupt existing land uses adjacent to the project site.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.2-3	**Construction of the proposed Project would result in the conversion of a small portion of vacant land to a new facility.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.2-4	**Implementation of the proposed Project may be inconsistent with the goals, policies, and objectives of the Trinity County General Plan, as well as the local community plans, policies, and ordinances.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
3.3 GEOLOGY, FLUVIAL GEOMORPHOLOGY, AND SOILS		
Impact 3.3-1	**Implementation of the proposed Project could result in the exposure of structures and people to geologic hazards including ground shaking and liquefaction.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.3-2	**Construction activities associated with the proposed Project could potentially result in increased erosion and associated sedimentation of the Trinity River.**	
Mitigation Measures	**BT-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities. Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **BT-2b:** Contractor shall prepare an erosion and sedimentation control plan in accordance with applicable permit requirements. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible; Salvage, store, and use the highest quality soil for revegetation; Discourage noxious weed competition and control noxious weeds; Clear steep slopes immediately prior to scheduled construction; Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff; Cease topsoil stripping activities during significantly wet or windy weather; For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used; Use bales and/or silt fencing as appropriate;	**BT-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities. Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **BT-2b:** Contractor shall prepare an erosion and sedimentation control plan in accordance with applicable permit requirements. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible; Salvage, store, and use the highest quality soil for revegetation; Discourage noxious weed competition and control noxious weeds; Clear steep slopes immediately prior to scheduled construction; Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff; Cease topsoil stripping activities during significantly wet or windy weather; For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used; Use bales and/or silt fencing as appropriate;

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
	Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic; Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season. Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.	Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic; Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season. Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.3-3	**Implementation of the proposed Project would be inconsistent with the ten Trinity River healthy river attributes.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.4 WATER RESOURCES		
Impact 3.4-1	**Implementation of the proposed Project could result in a permanent increase in base floodwater surface elevation.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.4-2	**Construction activities associated with the Project could result in a temporary increase in base floodwater surface elevation.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.4-3	**Construction and implementation of the Project may necessitate the relocation of one or more private wells.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.5 WATER QUALITY		
Impact 3.5-1	**Construction of the proposed Project could result in short-term temporary increases in turbidity and total suspended solids levels during construction.**	
Mitigation Measures	**BT-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **BT-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., construction of temporary construction detour, placement of rip-rap, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives.	**BT-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **BT-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., construction of temporary construction detour, placement of rip-rap, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
	BT-1c: Contractor shall prepare and implement an SWPPP that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.	**BT-1c:** Contractor shall prepare and implement an SWPPP that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.5-2	**Construction of the proposed Project could potentially cause contamination of the Trinity River from hazardous materials spills.**	
Mitigation Measures	**BT-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **BT-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option. **BT-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	**BT-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **BT-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option. **BT-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.5-3	**Operation of the Project would result in increased pollutant loads from bridges/roadway runoff into the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.5-4	Construction and operation of the Project could result in increased stormwater runoff and subsequent potential for erosion.	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.5-5	**Construction and operation of the Project could result in the degradation of Trinity River beneficial uses identified in the Basin Plan.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.6 FISHERY RESOURCES		
Impact 3.6-1	**Construction activities associated with the proposed Project could result in effects on potential spawning and rearing habitat for anadromous fishes, including federally listed coho salmon.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.6-2	**Construction activities associated with the proposed Project could result in increased erosion and sedimentation levels that could adversely affect fishes, including federally listed coho salmon.**	
Mitigation Measures	BMPs for erosion and runoff control to protect adjacent wetland habitat values are included as part of the mitigation requirements described in Section 3.7, Vegetation, Wildlife, and Wetlands.	BMPs for erosion and runoff control to protect adjacent wetland habitat values are included as part of the mitigation requirements described in Section 3.7, Vegetation, Wildlife, and Wetlands.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.6-3	**Construction activities associated with the proposed Project could potentially result in the accidental spill of hazardous materials that could adversely affect fishes, including federally listed coho salmon.**	
Mitigation Measures	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **BT-3a:** Equipment and materials shall be stored away from wetland and surface water features. **BT-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **BT-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times. **BT-3d:** The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **BT-3a:** Equipment and materials shall be stored away from wetland and surface water features. **BT-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdow ns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **BT-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times. **BT-3d:** The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-4	**Construction activities associated with the proposed Project could result in fish passage being temporarily impaired during the in-stream construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.6-5	**Construction activities associated with the proposed Project could result in the mortality of rearing fishes, including federally listed coho salmon, during the in-stream construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.6-6	**Implementation of the proposed Project would result in the permanent and temporary loss of shaded riverine aquatic habitat.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.7 VEGETATION, WILDLIFE, AND WETLANDS		
Impact 3.7-1	**Construction activities associated with the proposed Project would result in the loss of upland plant communities.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-2	**Construction of the Project could result in the loss of individuals of a special-status plant species.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-3	**Construction activities associated with the proposed Project could result in the loss of jurisdictional wetlands.**	
Mitigation Measures	**BT-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. **BT-3b:** To address temporary impacts to wetland features, the following mitigation would be implemented within all staging sites and construction access areas, which traverse natural areas, during construction activities: Conduct all construction and staging activities across wetland features during the dry season (typically May through October) to the fullest extent feasible.	**BT-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along wth specific instructions to avoid any construction activity within these features. **BT-3b:** To address temporary impacts to wetland features, the following mitigation would be implemented within all staging sites and construction access areas, which traverse natural areas, during construction activities: Conduct all construction and staging activities across wetland features during the dry season (typically May through October) to the fullest extent feasible.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
	Place sediment curtains upstream and downstream of the construction limits to prevent sediment disturbed during ground-disturbing activities from being transported and deposited outside of the construction limits. Locate spoil sites such that they do not drain directly into wetland features, to the fullest extent possible. If a spoil site drains into a wetland feature, catch basins would be constructed to intercept sediment before it reaches the wetland feature. Spoil sites would be flattened and mulched to reduce the potential for erosion. Store equipment and materials away from all wetland features. No contaminants or other debris would be deposited within 25 feet of the drainages and wetland areas. Upon completion of construction activities, any impacted wetland area shall be returned to original grade. The upper 6" to 12" of topsoil should be maintained and used as backfill following installation of new sewer line. Any wetland area left bare following construction would be revegetated using plugs of rushes, sedges, or other native vegetation taken by hand from plants in adjacent wetland habitat (i.e., seasonal wet meadow, fresh emergent wetland). **BT-3c:** If permanent filling of jurisdictional wetlands is required during the construction of any phase of the proposed Project, mitigation would be required. Mitigation at a 2:1 ratio will ensure that there is no net-loss of wetlands as a result of the project. For the Proposed Action, since 0.003 acre of seasonal wet meadow would be filled, 0.006 acre of new seasonal wet meadow shall be created. For Alternative 1, since 0.002 acre of riparian wet meadow would be filled, 0.004 acre of new riparian wet meadow shall be created. On-site mitigation is encouraged by these two resource agencies and would need to be implemented if feasible. A Wetlands Mitigation and Monitoring Plan would be prepared and provided to the Corps and the CDFG for review and approval. The Wetlands Mitigation and Monitoring Plan would identify the monitoring parameters and performance criteria for each parameter. Typical performance criteria may include: The target number of hydrophytic plant species to be established in the mitigation area shall be the average number of obligate, facultative wetland, and facultative species that occur in adjacent reference wetlands. Reference wetlands will be identified in consultation with the Corps. The percent cover of obligate, facultative wetland, and facultative species within the mitigation area shall not be less than 80 percent of the average percent cover occurring in the reference wetlands. No visible erosion of topsoil shall occur within the wetland mitigation area.	Place sediment curtains upstream and downstream of the construction limits to prevent sediment disturbed during ground-disturbing activities from being transported and deposited outside of the construction limits. Locate spoil sites such that they do not drain directly into wetland features, to the fullest extent possible. If a spoil site drains into a wetland feature, catch basins would be constructed to intercept sediment before it reaches the wetland feature. Spoil sites would be flattened and mulched to reduce the potential for erosion. Store equipment and materials away from all wetland features. No contaminants or other debris would be deposited within 25 feet of the drainages and wetland areas. Upon completion of construction activities, any impacted wetland area shall be returned to original grade. The upper 6" to 12" of topsoil should be maintained and used as backfill following installation of new sewer line. Any wetland area left bare following construction would be revegetated using plugs of rushes, sedges, or other native vegetation taken by hand from plants in adjacent wetland habitat (i.e., seasonal wet meadow, fresh emergent wetland). **BT-3c:** If permanent filling of jurisdictional wetlands is required during the construction of any phase of the proposed Project, mitigation would be required. Mitigation at a 2:1 ratio will ensure that there is no net-loss of wetlands as a result of the project. For the Proposed Action, since 0.003 acre of seasonal wet meadow would be filled, 0.006 acre of new seasonal wet meadow shall be created. For Alternative 1, since 0.002 acre of riparian wet meadow would be filled, 0.004 acre of new riparian wet meadow shall be created. On-site mitigation is encouraged by these two resource agencies and would need to be implemented if feasible. A Wetlands Mitigation and Monitoring Plan would be prepared and provided to the Corps and the CDFG for review and approval. The Wetlands Mitigation and Monitoring Plan would identify the monitoring parameters and performance criteria for each parameter. Typical performance criteria may include: The target number of hydrophytic plant species to be established in the mitigation area shall be the average number of obligate, facultative wetland, and facultative species that occur in adjacent reference wetlands. Reference wetlands will be identified in consultation with the Corps. The percent cover of obligate, facultative wetland, and facultative species within the mitigation area shall not be less than 80 percent of the average percent cover occurring in the reference wetlands. No visible erosion of topsoil shall occur within the wetland mitigation area.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
	Water depths, periods of inundation, and soil saturation in the mitigation area shall be similar to conditions occurring in the reference wetlands. If the performance criteria are not satisfied by the end of the fourth spring following construction of mitigation area, remediation measures shall be identified and implemented. At a minimum, the monitoring program would consist of the filing of an annual report to both agencies for five years. The mitigation would be considered successful if criteria are met for three consecutive years. The BOR or their appointed agent would maintain the mitigation site in perpetuity. **BT-3d:** For riparian wetland (montane riparian) habitat, the BOR shall develop and implement a revegetation plan to mitigate for both temporary and permanent impacts that would occur as a result of implementing the proposed project. The revegetation plan should identify appropriate mitigation for impacts (i.e., based on 3:1 ratio for project impacts), describe planting techniques and locations (onsite and offsite), and incorporate planting of native species that would resist invasion of noxious plant species. The revegetation plan shall be developed in consultation with the Corps, NMFS and CDFG. Following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures BT-6a through BT-6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*	Water depths, periods of inundation, and soil saturation in the mitigation area shall be similar to conditions occurring in the reference wetlands. If the performance criteria are not satisfied by the end of the fourth spring following construction of mitigation area, remediation measures shall be identified and implemented. At a minimum, the monitoring program would consist of the filing of an annual report to both agencies for five years. The mitigation would be considered successful if criteria are met for three consecutive years. The BOR or their appointed agent would maintain the mitigation site in perpetuity. **BT-3d:** For riparian wetland (montane riparian) habitat, the BOR shall develop and implement a revegetation plan to mitigate for both temporary and permanent impacts that would occur as a result of implementing the proposed project. The revegetation plan should identify appropriate mitigation for impacts (i.e., based on 3:1 ratio for project impacts), describe planting techniques and locations (onsite and offsite), and incorporate planting of native species that would resist invasion of noxious plant species. The revegetation plan shall be developed in consultation with the Corps, NMFS and CDFG. Following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures BT-6a through BT-6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.7-4	**Construction activities associated with the proposed Project could disrupt active raptor nests.**	
Mitigation Measures	**BT-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **BT-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**BT-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **BT-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-5	**Construction activities associated with the proposed Project could result in impacts to nesting individuals of yellow warbler and yellow-breasted chat.**	
Mitigation Measures	**BT-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required.	**BT-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
	BT-5b: If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**BT-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-6	**Construction activities associated with the proposed Project could result in impacts to northern spotted owl**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-7	**Construction activities associated with the proposed Project could result in impacts to little willow flycatcher.**	
Mitigation Measures	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **BT-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **BT-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **BT-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **BT-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.7-8	**Construction activities associated with the proposed Project could result in impacts to BLM sensitive species and Northwest Forest Plan Survey and Manage species.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-9	**Construction activities associated with the proposed Project could result in impacts to foothill yellow-legged frog.**	
Mitigation Measures	**BT-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **BT-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **BT-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BT-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BT-3), and will be fully implemented.	**BT-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **BT-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **BT-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BT-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BT-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-10	**Construction activities associated with the proposed Project could result in impacts to northwestern pond turtle.**	
Mitigation Measures	**BT-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits.	**BT-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
	BT-10b: In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **BT-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BT-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BT-3), and will be fully implemented.	**BT-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **BT-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BT-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BT-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-11	**Construction activities associated with the proposed Project could restrict terrestrial wildlife movement through the Project ESL.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-12	**Construction activities associated with the proposed Project could disrupt active swallow nests.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-13	**Construction activities associated with the proposed Project could result in the loss of bald eagle, golden eagle, and osprey foraging and perching habitat.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.7-14	**Construction activities associated with the proposed Project could result in the disruption of active bat roosts.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.8 RECREATION		
Impact 3.8-1	Construction activities associated with the proposed Project could disrupt boating, fishing, and swimming activities within the Trinity River.	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.8-2	**Construction and operation of the proposed Project could result in an increased safety risk to recreational users.**	
Mitigation Measures	**BT-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.	**BT-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.8-3	**Construction activities associated with the proposed Project could lower the river reaction aesthetic value by increasing turbidity levels in the Trinity River.**	
Mitigation Measures	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **BT-1a-1d** from Section 3.5, Water Quality.	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **BT-1a-1d** from Section 3.5, Water Quality.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.8-4	**Construction activities associated with the proposed Project could reduce or eliminate public access to the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.8-5	**Construction and implementation of the proposed Project could impact Wild and Scenic River values.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.9 SOCIOECONOMICS, POPULATION, AND HOUSING		
Impact 3.9-1	**Bridge construction associated with the Project would provide employment opportunities for construction workers in Trinity County.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.9-2	**Construction and implementation of the Project could result in the disruption or displacement of local businesses.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.9-3	**Bridge construction associated with the Project would result in an increased demand for housing during construction.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
3.10 TRIBAL TRUST		
Impact 3.10-1	**Implementation of the Project may reduce the quantity or quality of a tribal trust asset.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.11 CULTURAL RESOURCES		
Impact 3.11-1	**Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources.**	
Mitigation Measures	**BT-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant. **BT-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.	**BT-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant. **BT-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
3.12 AIR QUALITY		
Impact 3.12-1	**Construction and operation of the proposed Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; PM_{25}) levels.**	
Mitigation Measures	**BT-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily. Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer). Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads. Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days. All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added. Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated wth a non-persistent erosion control mixture.	**BT-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily. Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer). Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads. Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days. All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added. Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
	Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.	Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.12-2	**Construction activities associated with the proposed Project could result in an increase in construction vehicle exhaust emissions.**	
Mitigation Measures	**BT-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).	**BT-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.13 ENVIRONMENTAL JUSTICE		
Impact 3.13-1	**Implementation of the proposed Project could adversely affect a minority or low-income population and/or community.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.14 AESTHETICS		
Impact 3.14-1	**Construction of the new bridge structures for the proposed Project could result in the degradation and/or obstruction of a scenic view from key viewing areas.**	
Mitigation Measures	**BT-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure BT-3a through BT-3d (Replacement of Riparian Vegetation).	**BT-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure BT-3a through BT-3d (Replacement of Riparian Vegetation).

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.14-2	**Construction of the new bridge structures for the proposed Project could be substantially out of character or disharmonious with existing land uses and aesthetic features.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.14-3	**The proposed Project may be inconsistent with federal and/or state Wild and Scenic River Act requirements.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.14-4	**The proposed Project may potentially generate increased daytime glare and/or nighttime lighting.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.15 HAZARDOUS MATERIALS		
Impact 3.15-1	**Construction of the proposed Project may expose potentially hazardous materials that could pose a public hazard.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.15-2	**Construction of the proposed Project may increase the potential of public health or safety hazards due to increased risk of upset.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.15-3	**Implementation of the proposed Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.16 NOISE		
Impact 3.16-1	**Construction activities associated with the proposed Project would result in temporary noise impacts to nearby sensitive receptors.**	
Mitigation Measures	**BT-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County). **BT-1b:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **BT-1c:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).	**BT-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County). **BT-1b:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **BT-1c:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.17 PUBLIC SERVICES AND UTILITIES / ENERGY		
Impact 3.17-1	**Implementation of the proposed Project could potentially disrupt an existing domestic water supply during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Impact 3.17-2	**Implementation of the proposed Project could potentially disrupt an existing domestic sewer/septic system during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-3	**Implementation of the proposed Project could potentially disrupt existing electrical service during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-4	**Implementation of the proposed Project could potentially disrupt telephone service during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-5	**Construction of the proposed Project could result in the generation of increased solid waste.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-6	**Implementation of the proposed Project may result in decreased emergency response time during construction.**	
Mitigation Measures	**BT-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **BT-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.	Since no significant impact was identified for this alternative, no mitigation is required.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	Alternative 1 (Raise Existing Upstream Levee)
Level of Significance After Mitigation	Less than Significant	N/A
Impact 3.17-7	**Construction of the proposed Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-8	**Construction of the proposed Project could result in a substantial use of nonrenewable energy resources.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.18 TRANSPORTATION / TRAFFIC CIRCULATION		
Impact 3.18-1	**Construction of the proposed Project would reduce/close existing traffic lanes.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.18-2	**Construction of the proposed Project would generate short-term increases in vehicle trips.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.18-3	**Construction of the proposed Project would obstruct access to adjacent land uses.**	
Mitigation Measures	**BT-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project.	**BT-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project.

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
	BT-3b During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.	**BT-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.18-4	**Construction of the proposed Project would increase local roadway wear-and-tear.**	
Mitigation Measures	**BT-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Brown's Mountain Road, which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **BT-4b** A post-construction survey of Brown's Mountain. Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.	**BT-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Brown's Mountain Road, which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **BT-4b** A post-construction survey of Brown's Mountain. Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.18-5	**Construction of the proposed Project could result in the loss of available public parking.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BUCKTAIL

	Proposed Action (Raised Right Approach Roadway and Arch Culvert)	**Alternative 1 (Raise Existing Upstream Levee)**
Impact 3.18-6	**Construction of the proposed Project could pose a safety hazard to motorists, bicyclists, and pedestrians.**	
Mitigation Measures	**BT-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.	**BT-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
3.2 LAND USE		
Impact 3.2-1	**Construction of the proposed Project could temporarily disrupt existing land uses adjacent to the project site.**	
Mitigation Measures	PB-1a: The BOR shall clearly identify all construction staging areas and potential access routes on the final design drawings. PB-1b: Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. PB-1c: During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.	PB-1a: The BOR shall clearly identify all construction staging areas and potential access routes on the final design drawings. PB-1b: Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. PB-1c: During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.2-2	**Future operation of the proposed Project could disrupt existing land uses adjacent to the project site.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.2-3	**Construction of the proposed Project would result in the conversion of a small portion of vacant land to a new facility.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this altemative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.2-4	**Implementation of the proposed Project may be inconsistent with the goals, policies, and objectives of the Trinity County General Plan, as well as the local community plans, policies, and ordinances.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.3 GEOLOGY, FLUVIAL GEOMORPHOLOGY, AND SOILS		
Impact 3.3-1	**Implementation of the proposed Project could result in the exposure of structures and people to geologic hazards including ground shaking and liquefaction.**	
Mitigation Measures	**PB-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **PB-1b:** Final design of the bridges shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction.	**PB-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **PB-1b:** Final design of the bridges shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.3-2	**Construction activities associated with the proposed Project could potentially result in increased erosion and associated sedimentation of the Trinity River.**	
Mitigation Measures	**PB-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities.	**PB-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
	Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **PB-2b:** Contractor shall prepare an erosion and sedimentation control plan in accordance with applicable permit requirements. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible; Salvage, store, and use the highest quality soil for revegetation; Discourage noxious weed competition and control noxious weeds; Clear steep slopes immediately prior to scheduled construction; Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff; Cease topsoil stripping activities during significantly wet or windy weather; For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used; Use bales and/or silt fencing as appropriate; Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic; Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season. Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.	Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **PB-2b:** Contractor shall prepare an erosion and sedimentation control plan in accordance with applicable permit requirements. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible; Salvage, store, and use the highest quality soil for revegetation; Discourage noxious weed competition and control noxious weeds; Clear steep slopes immediately prior to scheduled construction; Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff; Cease topsoil stripping activities during significantly wet or windy weather; For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used; Use bales and/or silt fencing as appropriate; Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic; Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season. Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
Impact 3.3-3	**Implementation of the proposed Project would be inconsistent with the ten Trinity River healthy river attributes.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.4 WATER RESOURCES		
Impact 3.4-1	**Implementation of the proposed Project could result in a permanent increase in base floodwater surface elevation.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.4-2	**Construction activities associated with the Project could result in a temporary increase in base floodwater surface elevation.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.4-3	**Construction and implementation of the Trinity River Bridge Project may result in the relocation of one or more private wells.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.5 WATER QUALITY		
Impact 3.5-1	**Construction of the proposed Project could result in short-term temporary increases in turbidity and total suspended solids levels during construction.**	
Mitigation Measures	**PB-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below.	**PB-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
	Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **PB-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., during abutment construction or bridge removal activities). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives. **PB-1c:** Contractor shall prepare and implement an SWPPP that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.	Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **PB-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., during abutment construction or bridge removal activities). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives. **PB-1c:** Contractor shall prepare and implement an SWPPP that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs. All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.5-2	**Construction of the proposed Project could potentially cause contamination of the Trinity River from hazardous materials spills.**	
Mitigation Measures	**PB-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **PB-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option.	**PB-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **PB-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
	PB-2c: The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	**PB-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.5-3	**Operation of the Project would result in increased pollutant loads from bridges/roadway runoff into the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.5-4	**Construction and operation of the Project could result in increased stormwater runoff and subsequent potential for erosion.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.5-5	**Construction and operation of the Project could result in the degradation of Trinity River beneficial uses identified in the Basin Plan.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
3.6 FISHERY RESOURCES		
Impact 3.6-1	**Construction activities associated with the proposed Project could result in effects on potential spawning and rearing habitat for anadromous fishes, including federally listed coho salmon.**	
Mitigation Measures	**PB-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **PB-1b:** Disturbance of LWD shall be avoided when possible. Necessarily removed LWD from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist. **PB-1c:** Slope protection for road approaches and bridge abutments that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **PB-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminates such as petroleum products. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **PB-1e:** The conservation measures proposed above for other project-related impacts to salmonids are adequate for addressing most other potential impacts to EFH for coho and chinook salmon. Additional site-specific conservation measures that avoid or minimize impacts to EFH are described for each project site in the next section.	**PB-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **PB-1b:** Disturbance of LWD shall be avoided when possible. Necessarily removed LWD from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist. **PB-1c:** Slope protection for road approaches and bridge abutments that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **PB-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminates such as petroleum products. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **PB-1e:** The conservation measures proposed above for other project-related impacts to salmonids are adequate for addressing most other potential impacts to EFH for coho and chinook salmon. Additional site-specific conservation measures that avoid or minimize impacts to EFH are described for each project site in the next section.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-2	**Construction activities associated with the proposed Project could result in increased erosion and sedimentation that could adversely affect fishes, including federally listed coho salmon.**	
Mitigation Measures	**PB-2a:** Type D erosion control measures (e.g., hydroseeding) shall be implemented on impacted non-riparian upland areas, and on approach embankments where riparian trees and shrubs cannot be replanted.	**PB-2a:** Type D erosion control measures (e.g., hydroseeding) shall be implemented on impacted non-riparian upland areas, and on approach embankments where riparian trees and shrubs cannot be replanted.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
	PB-2b: Erosion control work shall consist of one application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed, commercial fertilizer, and water. **PB-2c:** Any construction activities proposed between the ordinary high water line (bankfull channel) and the low-flow channel water surface of the Trinity River, excluding passive vegetation removal activities above ground level (no soil disturbance), shall be restricted to the dry season (typically June 15th to September 15th). **PB-2d:** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **PB-2e:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **PB-2f:** Type D erosion control (e.g., hydroseeding) shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **PB-2g:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. **PB-2h:** Spoil sites shall be located such that they do not drain directly into surface water features, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately to allow percolation of effluent through the bottom and the sides rather than overflow. Spoil sites shall be graded and vegetated to reduce the potential for erosion. **PB-2i:** Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated.	**PB-2b:** Erosion control work shall consist of one application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed, commercial fertilizer, and water. **PB-2c:** Any construction activities proposed between the ordinary high water line (bankfull channel) and the low-flow channel water surface of the Trinity River, excluding passive vegetation removal activities above ground level (no soil disturbance), shall be restricted to the dry season (typically June 15th to September 15th). **PB-2d:** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **PB-2e:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **PB-2f:** Type D erosion control (e.g., hydroseeding) shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **PB-2g:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. **PB-2h:** Spoil sites shall be located such that they do not drain directly into surface water features, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately to allow percolation of effluent through the bottom and the sides rather than overflow. Spoil sites shall be graded and vegetated to reduce the potential for erosion. **PB-2i:** Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
	PB-2j: Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress.	**PB-2j:** Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-3	**Construction activities associated with the Project could potentially result in the accidental spill of hazardous materials that could adversely affect fishes, including federally listed coho salmon.**	
Mitigation Measures	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **PB-3a:** Equipment and materials shall be stored away from wetland and surface water features. **PB-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **PB-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times. **PB-3d:** The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **PB-3a:** Equipment and materials shall be stored away from wetland and surface water features. **PB-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **PB-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times. **PB-3d:** The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.6-4	**Construction activities associated with the proposed Project could result in fish passage being temporarily impaired during the in-stream construction phase.**	
Mitigation Measures	**PB-4a:** To minimize effects on upstream and downstream migrant salmonids, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions). In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work.	**PB-4a:** To minimize effects on upstream and downstream migrant salmonids, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions). In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-5	**Construction activities associated with the proposed Project could result in the mortality of rearing fishes, including federally listed coho salmon, during the in-stream construction phase.**	
Mitigation Measures	**PB-5a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids and other fishes.	**PB-5a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids and other fishes.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-6	**Implementation of the proposed Project would result in the permanent and temporary loss of shaded riverine aquatic habitat.**	
Mitigation Measures	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **PB-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **PB-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible. When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities.	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **PB-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **PB-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible. When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
	The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project. **PB-6c:** BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the BA (**Appendix F**). **PB-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.	The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project. **PB-6c:** BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the BA (**Appendix F**). **PB-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.7 VEGETATION, WILDLIFE, AND WETLANDS		
Impact 3.7-1	**Implementation of the Project would result in the loss of upland plant communities.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.7-2	**Construction of the Project could result in the loss of individuals of a special-status plant species.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-3	**Construction activities associated with the proposed Project could result in the loss of jurisdictional wetlands.**	
Mitigation Measures	**PB-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **PB -3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation within the Project ESL to the fullest extent feasible. When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **PB -3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location, depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established.	**PB-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **PB -3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation within the Project ESL to the fullest extent feasible. When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **PB -3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts). Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location, depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
	Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures PB-6a through PB-6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*	Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures PB-6a through PB-6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-4	**Construction activities associated with the proposed Project could disrupt active raptor nests (northern goshawk, Cooper's hawk, sharp-shinned hawk).**	
Mitigation Measures	**PB-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **PB-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**PB-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **PB-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities. Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.7-5	**Construction activities associated with the proposed Project could result in impacts to nesting individuals of yellow warbler, and yellow-breasted chat.**	
Mitigation Measures	**PB-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **PB-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**PB-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **PB-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-6	**Construction activities associated with the proposed Project could result in impacts to northern spotted owl.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.7-7	**Construction activities associated with the proposed Project could result in impacts to little willow flycatcher.**	
Mitigation Measures	**PB-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **PB-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.	**PB-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **PB-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-8	**Construction activities associated with the proposed Project could result in impacts to BLM sensitive species and Survey and Manage species.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-9	**Construction activities associated with the proposed Project could result in impacts to foothill yellow-legged frog.**	
Mitigation Measures	**PB-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **PB-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat.	**PB-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **PB-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
	PB-9c: Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **PB-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure PB-3), and will be fully implemented.	**PB-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **PB-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure PB-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-10	**Construction activities associated with the proposed Project could impact northwestern pond turtle.**	
Mitigation Measures	**PB-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **PB-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **PB-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **PB-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure PB-3), and will be fully implemented.	**PB-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **PB-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat. **PB-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **PB-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure PB-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-11	**Construction activities associated with the proposed Project could restrict terrestrial wildlife movement through the Project ESL.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.7-12	**Construction activities associated with the proposed Project could disrupt active swallow nests.**	
Mitigation Measures	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **PB-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access. **PB-12b:** While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects: Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **PB-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **PB-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access. **PB-12b:** While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects: Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **PB-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-13	**Construction activities associated with the proposed Project could result in the loss of bald eagle, golden eagle, and osprey foraging and perching habitat.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-14	**Construction activities associated with the proposed Project could result in the disruption of active bat roosts.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.8 RECREATION		
Impact 3.8-1	**Construction associated with the proposed Project could disrupt recreation activities within the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.8-2	**Construction and operation of the proposed Project could result in an increased safety risk to recreational users.**	
Mitigation Measures	**PB-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.	**PB-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.8-3	**Construction associated with the proposed Project could lower the river recreation aesthetic value by increasing turbidity levels in the Trinity River.**	
Mitigation Measures	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **PB-1a-1d** from Section 3.5, Water Quality.	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **PB-1a-1d** from Section 3.5, Water Quality.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.8-4	**Implementation of the project Project could reduce or eliminate public access to the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.8-5	**Construction and implementation of the Project could impact Wild and Scenic River Values.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.9 SOCIOECONOMICS, POPULATION, AND HOUSING		
Impact 3.9-1	**Bridge construction associated with the Project would provide employment opportunities for construction workers in Trinity County.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.9-2	**Construction and implementation of the Project could result in the disruption or displacement of local businesses.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.9-3	**Bridge construction associated with the Project would result in an increased demand for housing during construction.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.10 TRIBAL TRUST		
Impact 3.10-1	**Implementation of the Project may reduce the quantity or quality of a tribal trust asset.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.11 CULTURAL RESOURCES		
Impact 3.11-1	**Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources.**	
Mitigation Measures	**PB-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant. **PB-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains wthin 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.	**PB-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant. **PB-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.12 AIR QUALITY		
Impact 3.12-1	**Construction and operation of the proposed Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; PM_{25}) levels.**	
Mitigation Measures	**PB-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily. Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer). Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads. Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days. All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.	**PB-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily. Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer). Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads. Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days. All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
	Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.	Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged. Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.12-2	**Construction activities associated with the proposed Project could result in an increase in construction vehicle exhaust emissions.**	
Mitigation Measures	**PB-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD Rule 420. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).	**PB-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD Rule 420. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.13 ENVIRONMENTAL JUSTICE		
Impact 3.13-1	**Implementation of the proposed Project could adversely affect a minority or low-income population and/or community.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
3.14 AESTHETICS		
Impact 3.14-1	**Construction of the new bridge structures for the proposed Project could result in the degradation and/or obstruction of a scenic view from key viewing areas.**	
Mitigation Measures	**PB-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure PB-3a through PB-3d (Replacement of Riparian Vegetation).	**PB-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure PB-3a through PB-3d (Replacement of Riparian Vegetation).
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.14-2	**Construction of the new bridge structures for the proposed Project could be substantially out of character or disharmonious with existing land uses and aesthetic features.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.14-3	**The proposed Project may be inconsistent with federal and/or state Wild and Scenic River Act requirements.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.14-4	**The proposed Project may potentially generate increased daytime glare and/or nighttime lighting.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
3.15 HAZARDOUS MATERIALS		
Impact 3.15-1	**Construction of the proposed Project may expose potentially hazardous materials that could pose a public hazard.**	
Mitigation Measures	Contaminated Soils **PB-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **PB-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **PB-1c:** The contractor will be alerted to the presence of lead paint on the structures and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **PB-1d:** Prior to demolition and or reuse of the bridges, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **PB-1e:** None of the metal portions of the bridges should be sawed, burned, or sanded and, based on their condition, shall be disposed of in a properly-licensed landfill. Total Recoverable Petroleum Hydrocarbons **PB-1f:** All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility. **PB-1g:** All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: The TCLP; Fish Bioassay Testing; Semi-volatile Organic Compounds (EPA Method 8270).	Contaminated Soils **PB-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **PB-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **PB-1c:** The contractor will be alerted to the presence of lead paint on the structures and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **PB-1d:** Prior to demolition and or reuse of the bridges, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **PB-1e:** None of the metal portions of the bridges should be sawed, burned, or sanded and, based on their condition, shall be disposed of in a properly-licensed landfill. Total Recoverable Petroleum Hydrocarbons **PB-1f:** All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility. **PB-1g:** All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: The TCLP; Fish Bioassay Testing; Semi-volatile Organic Compounds (EPA Method 8270).

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.15-2	**Construction of the proposed Project may increase the potential of public health or safety hazards due to increased risk of upset.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.15-3	**Implementation of the proposed Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.16 NOISE		
Impact 3.16-1	**Construction activities associated with the proposed Project would result in temporary noise impacts to nearby sensitive receptors.**	
Mitigation Measures	**PB-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County). **PB –1b:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **PB –1c:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).	**PB-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County). **PB –1b:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **PB –1c:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.17 PUBLIC SERVICES AND UTILITIES / ENERGY		
Impact 3.17-1	**Implementation of the proposed Project could potentially disrupt an existing domestic water supply during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-2	**Implementation of the proposed Project could potentially disrupt an existing domestic sewer/septic system during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-3	**Implementation of the proposed Project could potentially disrupt existing electrical service during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-4	**Implementation of the proposed Project could potentially disrupt telephone service during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-5	**Construction of the proposed Project could result in the generation of increased solid waste.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-6	**Implementation of the proposed Project may result in decreased emergency response time during construction.**	
Mitigation Measures	**PB-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **PB-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.	**PB-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **PB-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.17-7	**Construction of the proposed Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-8	**Construction of the proposed Project could result in a substantial use of nonrenewable energy resources.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.18 TRANSPORTATION / TRAFFIC CIRCULATION		
Impact 3.18-1	**Construction of the proposed Project would reduce/close existing traffic lanes.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.18-2	**Construction of the proposed Project would generate short-term increases in vehicle trips.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	Alternative 1 (Replacement Downstream with Two Single Span Structures)
Impact 3.18-3	**Construction of the proposed Project would obstruct access to adjacent land uses.**	
Mitigation Measures	**PB-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **PB-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.	**PB-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **PB-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.18-4	**Construction of the proposed Project would increase local roadway wear-and-tear.**	
Mitigation Measures	**PB-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Poker Bar and Bridge Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **PB-4b** A post-construction survey of Poker Bar and Bridge Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.	**PB-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Poker Bar and Bridge Road which will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **PB-4b** A post-construction survey of Poker Bar and Bridge Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.18-5	**Construction of the proposed Project could result in the loss of available public parking.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-3
SUMMARY OF IMPACTS AND MITIGATION MEASURES – POKER BAR

	Proposed Action (Replacement Downstream with Two Single Span Structures)	**Alternative 1 (Replacement Downstream with Two Single Span Structures)**
Impact 3.18-6	**Construction of the proposed Project could pose a safety hazard to motorists, bicyclists, and pedestrians.**	
Mitigation Measures	**PB-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.	**PB-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
3.2 LAND USE		
Impact 3.2-1	**Construction of the proposed Project could temporarily disrupt existing land uses adjacent to the project site.**	
Mitigation Measures	BR-1a: The BOR shall clearly identify all construction staging areas and potential access routes on the final design drawings. BR-1b: Construction bid documents will require that access be maintained, though temporary closures of short duration will occur, throughout the construction period for all private residences adjacent to the project. BR-1c: During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.	BR-1a: The BOR shall clearly identify all construction staging areas and potential access routes on the final design drawings. BR-1b: Construction bid documents will require that a minimum of one lane of traffic be maintained through the construction site at all times. If not, then the BOR and their contractor shall contact the affected property owners to coordinate feasible and mutually convenient dates/times during which construction could take place. This will ensure that the impact to property access is minimized to the extent possible and that the property owners have an opportunity to discuss any concerns. Coordination should occur a minimum of one-month prior to starting construction. Advance notification in the form of roadside signs shall be provided by the BOR and/or their contractor that inform the driving public that a segment of Steel Bridge Road will be temporary closed to traffic with information such as the anticipated time frame/duration of closure, and also the times of day of closure, if only for certain hours. If feasible, the construction work should be done during off-peak. The roadside signs should be placed at the intersection of State Route 299 and Steel Bridge Road. BR-1c: During the construction phase of the project, the BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.2-2	**Future operation of the proposed Project could disrupt existing land uses adjacent to the project site.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.2-3	**Construction of the proposed Project would result in the conversion of a small portion of vacant land to a newfacility.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.2-4	**Implementation of the proposed Project may be inconsistent with the goals, policies, and objectives of the Trinity County General Plan, as well as the local community plans, policies, and ordinances.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.3 GEOLOGY, FLUVIAL GEOMORPHOLOGY, AND SOILS		
Impact 3.3-1	**Implementation of the proposed Project could result in the exposure of structures and people to geologic hazards including ground shaking and liquefaction.**	
Mitigation Measures	**BR-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **BR-1b:** Final design of the bridge shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction	**BR-1a:** Prior to final bridge design, BOR engineers shall identify potential engineering solutions to address construction on unstable materials. This may include one or more the following, as appropriate: Remove unstable fill before placement of widened bridge foundations and fill embankments. Extend foundations for bridge support columns through unstable materials into suitable dense materials (i.e., consolidated material, bedrock). Use rock bolting. **BR-1b:** Final design of the bridge shall meet all Caltrans and AASHTO standard seismic construction and design code requirements to prevent collapse from and minimize structural damage from ground shaking and liquefaction
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
Impact 3.3-2	**Construction activities associated with the proposed Project could potentially result in increased erosion and associated sedimentation of the Trinity River.**	
Mitigation Measures	**BR-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities. Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **BR-2b:** Contractor shall prepare an erosion and sedimentation control plan in accordance with applicable permit requirements. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible; Salvage, store, and use the highest quality soil for revegetation; Discourage noxious weed competition and control noxious weeds; Clear steep slopes immediately prior to scheduled construction; Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff; Cease topsoil stripping activities during significantly wet or windy weather; For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used; Use bales and/or silt fencing as appropriate; Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic; Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.	**BR-2a:** The BOR shall implement the following measures throughout construction: Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas that have been approved by the BOR. Confine all construction vehicular traffic to the designated access routes and staging area. Limit disturbance to the minimum necessary to complete construction activities. Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. **BR-2b:** Contractor shall prepare an erosion and sedimentation control plan in accordance with applicable permit requirements. The following measures shall be used as a guide to develop this plan: Restore disturbed areas to pre-construction contours to the extent feasible; Salvage, store, and use the highest quality soil for revegetation; Discourage noxious weed competition and control noxious weeds; Clear steep slopes immediately prior to scheduled construction; Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff; Cease topsoil stripping activities during significantly wet or windy weather; For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used; Use bales and/or silt fencing as appropriate; Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic; Following completion of each stage of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. Prior to a rain event or when there is a greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
	Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.	Filter fences and catch basins shall be placed below all construction activities at the edge of the Trinity River and other surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. Spoil sites shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion. Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until disturbed areas have been revegetated.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.3-3	**Implementation of the proposed Project would be inconsistent with the ten Trinity River healthy river attributes.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.4 WATER RESOURCES		
Impact 3.4-1	**Implementation of the proposed Project could result in a permanent increase in base floodwater surface elevation.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.4-2	**Construction activities associated with the Project could result in a temporary increase in base floodwater surface elevation.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.4-3	**Construction and implementation of the Trinity River Bridge Project may result in the relocation of one or more private wells.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.5 WATER QUALITY		
Impact 3.5-1	**Construction of the proposed Project could result in short-term temporary increases in turbidity and total suspended solids levels during construction.**	
Mitigation Measures	**BR-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **BR-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., bridge removal, retaining wall construction, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives. **BR-1c:** Contractor shall prepare and implement an SWPPP that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs.	**BR-1a:** Turbidity increases associated with project construction activities shall not exceed the NCRWQCB water quality objectives for turbidity in the Trinity River Basin. The current threshold for turbidity levels in the Trinity River, as listed in the Basin Plan (NCRWQCB 2001), is summarized below. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. **BR-1b:** To ensure that turbidity levels do not exceed the threshold listed above during in-stream project construction activities; the BOR shall coordinate with the contractor to monitor turbidity levels 50 feet upstream and 300 feet downstream of the point of in-stream construction activities. Sampling procedures shall be performed in accordance with applicable permit requirements. Grab samples should be taken four times daily, when construction activities potentially have the greatest water quality impact (i.e., bridge removal, retaining wall construction, if applicable). In the event that monitoring data reveal that Basin Plan turbidity objectives are being exceeded, BOR shall modify its construction activities in whatever manner is necessary to reduce turbidity to levels consistent with those objectives. **BR-1c:** Contractor shall prepare and implement an SWPPP that includes silt fences, sediment filters, dewatering activities, and routine monitoring to verify effectiveness. Proper implementation of erosion and sediment controls and dewatering activities should be adequate to minimize sediment inputs into the Trinity River until vegetation re-growth occurs.

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
	All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.	All sediment containment devices and erosion control devices will be inspected daily during the construction period to ensure that devices are properly functioning. Excavated and stored materials will be kept in upland sites with erosion control properly installed and maintained. Excavated and stored materials will be staged in stable upland sites. All applicable erosion control standards will be required during stockpiling of materials.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.5-2	**Construction of the proposed Project could potentially cause contamination of the Trinity River from hazardous materials spills.**	
Mitigation Measures	**BR-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **BR-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option. **BR-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.	**BR-2a:** The BOR shall require that the bridge contractor prepare and implement a spill prevention and containment plan in accordance with applicable federal and state requirements. **BR-2b:** The BOR shall include in the construction contract documents a requirement that any construction equipment that would come in contact with the Trinity River will need to be inspected daily for leaks prior to entering the flowing channel. External oil, grease, and mud will be removed from equipment using steam cleaning. Untreated wash and rinse water must be adequately treated prior to discharge if that is the desired disposal option. **BR-2c:** The BOR shall include in the construction contract documents a requirement that hazardous materials, including fuels, oils, solvents, not be stored or transferred within 150 feet of the active Trinity River channel. Areas for fuel storage, refueling, and servicing will be located at least 150 feet from the active river channel. In addition, the construction contractor shall be responsible for maintaining spill containment booms onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.5-3	**Operation of the Project would result in increased pollutant loads from bridges/roadway runoff into the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.5-4	**Construction and operation of the Project could result in increased stormwater runoff and subsequent potential for erosion.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.5-5	**Construction and operation of the Project could result in the degradation of Trinity River beneficial uses identified in the Basin Plan.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.6 FISHERY RESOURCES		
Impact 3.6-1	**Construction activities associated with the proposed Project could result in effects on potential spawning and rearing habitat for anadromous fishes, including federally listed coho salmon.**	
Mitigation Measures	**BR-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **BR-1b:** Disturbance of LWD shall be avoided when possible. Necessarily removed LWD from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist.	**BR-1a:** Timing of construction activities within the active low flow channel of the Trinity River shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions), to avoid, or minimize, impacts to rearing juvenile and staging adult salmonids. In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **BR-1b:** Disturbance of LWD shall be avoided when possible. Necessarily removed LWD from the construction area would be stockpiled at the construction site for replacement in the Trinity River at an appropriate location within the site as determined by a fishery biologist.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
	BR-1c: Slope protection for road approaches and bridge abutments that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **BR-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminates such as petroleum products. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **BR-1e:** Fill material used to construct the working platforms for installation of the single bent, and for removal of the existing bridge's mid-channel pier shall be formed from washed, spawning-sized gravel, between ? and four inches in diameter. This material would be graded to match natural streambed and bank contours at the site after completion of work. It is anticipated that the work platform to access the mid-channel pier will be in place for up to five days. **BR-1f:** The conservation measures proposed above for other project-related impacts to salmonids are adequate for addressing most other potential impacts to EFH for coho and chinook salmon. Additional site-specific conservation measures that avoid or minimize impacts to EFH are described for each project site in the next section.	**BR-1c:** Slope protection for road approaches and bridge abutments that may contact ordinary high water and flood waters of the Trinity River shall be composed only of appropriately sized, clean, shot quarried rock or boulder material. **BR-1d:** Fill gravels used on the streambeds and stream banks will be composed of washed, spawning-sized gravels from a local Trinity basin source. Gravel will be washed to remove any silts, sand, clay, and organic matter and will be free of contaminates such as petroleum products. Washed gravel will pass the Caltrans cleanliness test #227 with a value of 85 or greater. **BR-1e:** Fill material used to construct the working platforms for installation of the single bent, and for removal of the existing bridge's mid-channel pier shall be formed from washed, spawning-sized gravel, between ? and four inches in diameter. This material would be graded to match natural streambed and bank contours at the site after completion of work. It is anticipated that the work platform to access the mid-channel pier will be in place for up to five days. **BR-1f:** The conservation measures proposed above for other project-related impacts to salmonids are adequate for addressing most other potential impacts to EFH for coho and chinook salmon. Additional site-specific conservation measures that avoid or minimize impacts to EFH are described for each project site in the next section.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-2	**Construction activities associated with the proposed Project could result in increased erosion and sedimentation that could adversely affect fishes, including federally listed coho salmon.**	
Mitigation Measures	**BR-2a:** Type D erosion control measures (e.g., hydroseeding) shall be implemented on impacted non-riparian upland areas, and on approach embankments where riparian trees and shrubs cannot be replanted **BR-2b:** Erosion control work shall consist of one application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed, commercial fertilizer, and water.	**BR-2a:** Type D erosion control measures (e.g., hydroseeding) shall be implemented on impacted non-riparian upland areas, and on approach embankments where riparian trees and shrubs cannot be replanted **BR-2b:** Erosion control work shall consist of one application of erosion control materials within non-riparian upland areas and approach fills, embankment slopes, excavation slopes, and other areas designated by the project Engineer. These materials shall consist of fiber, native grass and forb seed, commercial fertilizer, and water.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
	BR-2c: Any construction activities proposed between the ordinary high water line (bankfull channel) and the low-flow channel water surface of the Trinity River, excluding passive vegetation removal activities above ground level (no soil disturbance), shall be restricted to the dry season (typically June 15th – September 15th). **BR-2d:** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **BR-2e:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **BR-2f:** Type D erosion control (e.g., hydroseeding) shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **BR-2g:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. **BR-2h:** Spoil sites shall be located such that they do not drain directly into surface water features, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately to allow percolation of effluent through the bottom and the sides rather than overflow. Spoil sites shall be graded and vegetated to reduce the potential for erosion. **BR-2i:** Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated. **BR-2j:** Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress.	**BR-2c:** Any construction activities proposed between the ordinary high water line (bankfull channel) and the low-flow channel water surface of the Trinity River, excluding passive vegetation removal activities above ground level (no soil disturbance), shall be restricted to the dry season (typically June 15th – September 15th). **BR-2d:** Activities that increase the erosion potential within the project ESL and action area shall be restricted to the fullest extent possible to the relatively dry summer and early fall period to minimize the potential for rainfall events to mobilize and transport sediment to the Trinity River. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until disturbed ground surfaces have been successfully revegetated. **BR-2e:** Areas where wetland and upland vegetation need to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by BOR. **BR-2f:** Type D erosion control (e.g., hydroseeding) shall be applied to areas where vegetation has been removed to reduce short-term erosion prior to the start of the rainy season. Soils shall not be left exposed during the rainy season. **BR-2g:** Filter fences and catch basins shall be placed below all construction activities near the edge of the Trinity River, but not in contact with flowing water, to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities. **BR-2h:** Spoil sites shall be located such that they do not drain directly into surface water features, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Catch basins will be sized appropriately to allow percolation of effluent through the bottom and the sides rather than overflow. Spoil sites shall be graded and vegetated to reduce the potential for erosion. **BR-2i:** Sediment control measures shall be in place prior to the onset of the rainy season and will be monitored and maintained in good working condition until the disturbed areas have been revegetated. **BR-2j:** Appropriate monitoring measures shall be implemented by BOR, BLM, and the County to document compliance with the measures described above. Monitoring measures would include turbidity measurements below the work sites, inspection of catch basins and filter fences, and monitoring of revegetation progress.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-3	**Construction activities associated with the Project could potentially result in the accidental spill of hazardous materials that could adversely affect fishes, including federally listed coho salmon.**	
Mitigation Measures	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **BR-3a:** Equipment and materials shall be stored away from wetland and surface water features. **BR-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **BR-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times. **BR-3d:** The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).	Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources within the project ESL: **BR-3a:** Equipment and materials shall be stored away from wetland and surface water features. **BR-3b:** Vehicles and equipment used during construction shall receive proper and timely maintenance to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling shall be conducted in an area at least 150 feet away from the Trinity River. **BR-3c:** Spill containment booms will be maintained onsite at all times during construction operations and/or staging of equipment or fueling supplies. Fueling trucks will maintain a spill containment boom at all times. **BR-3d:** The contractor will develop and implement site-specific BMPs, a water pollution control plan, and emergency spill controls, and will be responsible for containment and removal of any toxins released (Refer to Section 3.5, Water Quality for more information on water quality standards and local ordinances that would govern preparation of guidance plans).
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-4	**Construction activities associated with the proposed Project could result in fish passage being temporarily impaired during the in-stream construction phase.**	
Mitigation Measures	**BR-4a:** To minimize effects on upstream and downstream migrant salmonids, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions). In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work.	**BR-4a:** To minimize effects on upstream and downstream migrant salmonids, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions). In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-5	**Construction activities associated with the proposed Project could result in the mortality of rearing fishes, including federally listed coho salmon, during the in-stream construction phase.**	
Mitigation Measures	**BR-5a:** To minimize effects on upstream and downstream migrant salmonids, the timing of in-water construction activities within the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions). In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **BR-5b:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area.	**BR-5a:** To minimize effects on upstream and downstream migrant salmonids, the timing of in-water construction activities wthin the typical low-flow channel shall be limited to June 15th through September 15th, or later if permitted by CDFG and NMFS (dependent upon weather conditions). In-water construction and demolition will be restricted to the June 15th to September 15th period during all subsequent years' work. **BR-5b:** To avoid or minimize potential injury and mortality of fish during excavation and placement of fill or riprap materials within the active low flow channel, equipment shall be operated slowly and deliberately to alert and scare adult and juvenile salmonids away from the work area. The contractor shall be instructed that before submerging an excavator bucket or laying gravel or riprap below the water surface, the excavator bucket will be operated to "tap" the surface of the water, or a person will wade ahead of fill placement equipment to scare fish away from the work area.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.6-6	**Implementation of the proposed Project would result in the permanent and temporary loss of shaded riverine aquatic habitat.**	
Mitigation Measures	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **BR-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **BR-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible.	To maintain SRA habitat and bank stability adjacent to the bridge abutments, the projects would be designed to avoid and minimize losses of riparian vegetation adjacent to the Trinity River channel. Exclusionary fencing shall be installed along the boundaries of all riparian areas where construction access would have to occur to ensure that impacts to riparian vegetation are minimized. When loss of riparian vegetation within the project ESL is unavoidable, BOR shall implement the following measures: **BR-6a:** Prior to construction, a qualified biologist shall count and identify riparian tree and shrub species that would be removed to accommodate construction of the new bridge and roadway approaches. **BR-6b:** To mitigate for the loss of riparian habitat, the project would be designed to avoid and minimize losses to SRA features within the project construction limits to the fullest extent possible.

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
	When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities. The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project. **BR-6c:** BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the Biological Assessment (**Appendix F**). **BR-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.	When a loss of riparian vegetation is unavoidable, BOR will replant at a ratio of 3:1 (per woody riparian plant) to replace plants lost due to project construction activities. The 3:1 replanting ratio has been determined to be adequate to ensure successful establishment of at least one vigorous plant for replacement mitigation. Replacement of permanently lost riparian habitat would occur within the area previously occupied by the old bridge, which will be removed as part of the project, as well as open areas upstream and downstream of the new bridge and adjacent to the Trinity River. For temporary impacts, a mitigation ratio of 3:1 (per woody riparian plant) will also be used. Revegetation to address temporary impacts shall occur within the construction access areas upon completion of the project. **BR-6c:** BOR shall develop and implement a revegetation plan for impacts to riparian wetland that occur during project construction. The revegetation plan should identify appropriate mitigation for impacts, describe planting techniques and locations, and incorporate plantings of native species that would resist invasion of noxious plant species. A revegetation plan is included in the Biological Assessment (**Appendix F**). **BR-6d:** Following the completion of construction activities, plantings shall be established to replace all riparian trees and shrubs that would be removed during project work. All non-native species that are removed will be replaced with native species. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, tree seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate project ESL. BOR shall monitor the plantings annually for up to three years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that this performance standard is met. Once riparian mitigation has been successfully completed, BOR shall submit a memorandum to the Corps and NMFS documenting the results.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
3.7 VEGETATION, WILDLIFE, AND WETLANDS		
Impact 3.7-1	**Implementation of the Project would result in the loss of upland plant communities.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-2	**Construction of the Project could result in the loss of individuals of a special-status plant species.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-3	**Construction activities associated with the proposed Project could result in the loss of jurisdictional wetlands.**	
Mitigation Measures	**BR-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity wthin these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **BR-3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation w ithin the Project ESL to the fullest extent feasible. When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **BR-3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts).	**BR-3a:** Prior to the start of construction activities, the BOR shall retain a qualified biologist to identify construction access routes within the project area to ensure that these features avoid and/or minimize to the fullest extent impacts to jurisdictional waters. In addition, jurisdictional waters shall be clearly identified in the construction drawings along with specific instructions to avoid any construction activity within these features. Each jurisdictional feature proposed to be avoided will be flagged, staked, or otherwise marked to ensure that construction activities do not encroach upon these features. The exclusionary fencing shall be inspected and maintained on a regular basis throughout the project construction phase. **BR-3b:** To mitigate for a loss of jurisdictional waters habitat, specifically riparian wetland (montane riparian), the Project would be designed to avoid and minimize losses to wetland vegetation within the Project ESL to the fullest extent feasible. When loss of riparian wetland is unavoidable, the BOR will conduct mitigation at a ratio of 3:1 per woody riparian plant species for habitat temporarily affected and permanently lost due to project construction activities. **BR-3c:** For riparian wetland (montane riparian) habitat, following completion of construction activities, plantings shall be installed to replace all riparian trees and shrubs (by species) that were removed as a result of construction (temporary and permanent impacts).

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
	Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures BR-6a through BR-6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*	Replacement shall occur at a ratio of 3:1 per woody riparian species removed as a result of project construction activities. Replacement trees and shrubs should be planted in the appropriate season (i.e., spring or fall) following the completion of construction. Propagules (i.e., shrub cuttings, trees seedlings) shall be obtained either onsite or from a local nursery and planted along the Trinity River within the immediate Project ESL. Additional planting may need to occur at on off-site location depending on available opportunities for mitigation within and adjacent to the Project ESL. The BOR or their contractor shall monitor the plantings annually for up to five years to ensure that trees and shrubs have become established. Supplemental planting would be conducted, as necessary, to ensure that the performance standard is met. Once riparian wetlands mitigation has been successfully completed, the BOR shall submit a memorandum to the Corps, CDFG, and NMFS documenting the results. *Note: This measure may be conducted in conjunction with Measures BR-6a through BR-6d (Loss of Shaded Riverine Aquatic Habitat), as discussed in Section 3.6, Fishery Resources.*
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-4	**Construction activities associated with the proposed Project could disrupt active raptor nests (northern goshawk, Cooper's hawk, sharp-shinned hawk).**	
Mitigation Measures	**BR-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **BR-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities.	**BR-4a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the project construction limits shall be removed between September 1st and March 1st (i.e., outside the nesting season for raptor species) to ensure that active raptor nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and should not result in root removal or other ground-disturbances to avoid the potential for erosion and sedimentation. If all vegetation removal has been completed between September 1st and March 1st, no pre-construction surveys would be required. **BR-4b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for nesting raptors, including Cooper's hawk and sharp-shinned hawk, within a 500-foot radius around proposed construction activities.

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
	Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	Active raptor nests located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nests are identified within the construction disturbance area, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG, as appropriate, throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-5	**Construction activities associated with the proposed Project could result in impacts to nesting individuals of yellow warbler, and yellow-breasted chat.**	
Mitigation Measures	**BR-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **BR-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.	**BR-5a:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits shall be removed between September 1st and March 1st (i.e., outside of the nesting season for yellow warbler and yellow-breasted chat) to ensure that active nest trees are not removed as a result of project construction activities. Vegetation removal activities shall be limited to ground-level cuttings and will not include root removal or other ground-disturbing activities, to avoid potential erosion and sedimentation. If all vegetation removal activities are completed between September 1st and March 1st, no pre-construction surveys would be required. **BR-5b:** If vegetation removal cannot be accomplished between September 1st and March 1st, the BOR shall retain a qualified biologist to conduct a minimum of one survey (subsequent surveys would be separated by at least one week) for yellow warbler and yellow-breasted chat within a 500-foot radius around proposed construction limits. Active nests for each species that are located within 500 feet of construction activities shall be mapped, where practicable and feasible. If active nest trees are identified within the construction disturbance zone, they may only be removed prior to March 1st, or after the young have fledged (based on field verification). A qualified biologist shall monitor the nest to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. Nest tree removal shall only be performed in consultation with, and with pre-approval from the CDFG.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
Impact 3.7-6	**Construction activities associated with the proposed Project could result in impacts to northern spotted owl.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-7	**Construction activities associated with the proposed Project could result in impacts to little willow flycatcher.**	
Mitigation Measures	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **BR-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **BR-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.	The following mitigation measures shall be implemented to avoid/minimize potential impacts to little willow flycatcher: **BR-7a:** If construction is proposed between the months of April and August, a protocol-level survey for willow flycatchers within 500 feet of the construction limits shall be conducted during the spring prior to construction. If no active nests are observed, construction may proceed. If construction activities are to occur between September and March, no surveys would be required. A letter report that summarizes the survey results shall be submitted to the CDFG. **BR-7b:** All vegetation (i.e., trees, shrubs) that will need to be removed within the construction limits (including the temporary construction access routes) shall be removed between September 1st and March 1st (i.e., outside the nesting season for willow flycatcher) to ensure that active nest trees are not removed as a result of project construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-8	**Construction activities associated with the proposed Project could result in impacts to BLM sensitive species and Survey and Manage species.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.7-9	**Construction activities associated with the proposed Project could result in impacts to foothill yellow-legged frog.**	
Mitigation Measures	**BR-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **BR-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **BR-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BR-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BR-3), and will be fully implemented.	**BR-9a:** If any construction within the Trinity River channel will occur prior to August 1st of any construction season, a pre-construction survey for yellow-legged frog larvae and/or eggs shall be conducted by a qualified biologist. This survey would need to be conducted within the construction limits no more than two weeks prior to the start of in-stream construction activities. If larvae or eggs are detected, the biologist shall relocate them to a suitable location outside of the construction limits. **BR-9b:** In the event that a yellow-legged frog is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the frog has been moved to a safe location outside of the construction limits, within similar habitat. **BR-9c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BR-9d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BR-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-10	**Construction activities associated with the proposed Project could impact northwestern pond turtle.**	
Mitigation Measures	**BR-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **BR-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat.	**BR-10a:** A minimum of one survey for pond turtle nests shall be conducted a maximum of one week prior to construction. A qualified biologist shall be retained by the BOR to conduct the survey. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid impacting the nest. If the nest cannot be avoided, the nest should be excavated by the biologist and reburied at a suitable location outside of the construction limits. **BR-10b:** In the event that a pond turtle is observed within the construction limits, the contractor shall temporarily halt in-stream construction activities until the turtle has been moved to a safe location outside of the construction limits, within similar habitat.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
	BR-10c: Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BR-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BR-3), and will be fully implemented.	**BR-10c:** Mitigation measures presented in Section 3.5 (Water Quality) for addressing erosion and sedimentation and accidental spills shall be fully implemented to mitigate for the potential indirect impacts to potential dispersal habitat due to sedimentation and accidental spills. **BR-10d:** Mitigation measures associated with the disturbance to riparian habitat are discussed previously in this section under impacts to jurisdictional wetlands (Mitigation Measure BR-3), and will be fully implemented.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-11	**Construction activities associated with the proposed Project could restrict terrestrial wildlife movement through the Project ESL.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-12	**Construction activities associated with the proposed Project could disrupt active swallow nests.**	
Mitigation Measures	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **BR-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access.	If the current bridge structure is left undisturbed until after July 31st, then no additional mitigation is required. If construction activities involving the disturbance or removal of the existing bridge occur prior to July 31st of any given construction season, the following mitigation shall be implemented to reduce potential impacts to nesting swallows to a less than significant level: **BR-12a:** The BOR or its contractor shall remove all old swallow nests, if present, on the existing bridge structure prior to March 1st of the construction year. The old nests shall be removed by washing them down with water and/or knocking them down with poles and scrapers. Since swallows are strongly attracted to old nests or remnants of nests, all traces of mud should be removed. After all old nests have been removed, exclusionary netting with a diameter of ¾ inches or less (high-density, ultra-violet stabilized polyethylene twine) shall be installed on the underside of the existing bridge structure and extend 3 to 4 inches from the sides of the bridge so as to prevent swallows from gaining access.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
	BR-12b: While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects: Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **BR-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.	**BR-12b:** While the contractor will have flexibility in how to install the exclusionary netting, the following methodology has been used with some recent success on large-scale bridge projects: Attach netting to the bridge with a strong cable system secure to the bridge with concrete anchors. If necessary, a separate cable support system may be used for each section between piers and panel of netting. Each net panel should wrap from the top ledge on the side of the bridge structure down to the top of the piers. The net should then go under the bridge structure and back up to the other side to the same location on the opposite rail. Turnbuckles and immediate fasteners should be placed within each separate panel to keep the netting tight against the wall. Care should be taken along the top railing where the netting is attached to prevent any tampering. **BR-12c:** The netting shall be left in place until July 31st and monitored daily, especially during the onset of swallow nesting behavior when nest-building activities are the most intense. Any foundational nest material that may develop on either netting attached tightly to the bridge or on un-netted areas of the bridge (i.e., pier walls) shall be removed daily. Any deficiencies in the netting system (i.e., tears, unsecured areas) shall be repaired as soon as possible following observation. To avoid a take under the MBTA, nests shall be knocked down with poles or scrapers or washed off before they are 1/3 complete.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.7-13	**Construction activities associated with the proposed Project could result in the loss of bald eagle, golden eagle, and osprey foraging and perching habitat.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.7-14	**Construction activities associated with the proposed Project could result in the disruption of active bat roosts.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.

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SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Level of Significance After Mitigation	N/A	N/A
3.8 RECREATION		
Impact 3.8-1	**Construction associated with the proposed Project could disrupt recreation activities within the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.8-2	**Construction and operation of the proposed Project could result in an increased safety risk to recreational users.**	
Mitigation Measures	**BR-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.	**BR-2a:** The BOR shall provide precautionary signage to warn recreational users of the potential safety hazards associated with project construction activities. Signs and/or buoys shall be placed within and directly adjacent to the Project ESL along the Trinity River in accordance with the requirements specified in Title 14, Article 6 of the California Code of Regulations. Additionally, public notification of proposed project construction activities and associated safety hazards should be circulated in the local newspaper at least two weeks prior to the start of construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.8-3	**Construction associated with the proposed Project could lower the river recreation aesthetic value by increasing turbidity levels in the Trinity River.**	
Mitigation Measures	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **BR-1a-1d** from Section 3.5, Water Quality.	Implement Mitigation Measures (Proposed Action, Alternative 1, Alternative 2) **BR-1a-1d** from Section 3.5, Water Quality.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.8-4	**Implementation of the project Project could reduce or eliminate public access to the Trinity River.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.8-5	**Construction and implementation of the Project could impact Wild and Scenic River Values.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.9 SOCIOECONOMICS, POPULATION, AND HOUSING		
Impact 3.9-1	**Bridge construction associated with the Project would provide employment opportunities for construction workers in Trinity County.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.9-2	**Construction and implementation of the Project could result in the disruption or displacement of local businesses.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.9-3	**Bridge construction associated with the Project would result in an increased demand for housing during construction.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
3.10 TRIBAL TRUST		
Impact 3.10-1	**Implementation of the Project may reduce the quantity or quality of a tribal trust asset.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.11 CULTURAL RESOURCES		
Impact 3.11-1	**Implementation of the proposed Project could potentially result in disturbance of undiscovered prehistoric or historic resources.**	
Mitigation Measures	**BR-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant. **BR-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.	**BR-1a:** Prior to initiation of construction or ground-disturbing activities, all construction workers shall be alerted to the possibility of buried cultural remains. This would include prehistoric and/or historic resources. Personnel shall be instructed that upon discovery of buried cultural materials, work within 50 feet of the find shall be halted and a qualified archaeologist consulted. Once the find has been identified, then the BOR will make the necessary plans for treatment of the finds(s) and for the evaluation and mitigation of impacts if the find(s) are found to be significant. **BR-1b:** If buried human remains are encountered during construction, work in that area must be halted, and the Trinity County Coroner's Office ([530] 623-4154) shall be immediately contacted. If the remains are determined to be of Native American origin, then the NAHC will be notified within 24 hours of determination, as required by *Public Resources Code* 5097. The NAHC will notify designated Most Likely Descendants, which will provide recommendations for the treatment of the remains within 24 hours. The NAHC will mediate any disputes regarding treatment of remains. If the find is determined to be an historical resource or an unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or other appropriate mitigation shall be made available. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
3.12 AIR QUALITY		
Impact 3.12-1	**Construction and operation of the proposed Project could result in an increase in fugitive dust and associated particulate matter (PM_{10}; $PM_{2.5}$) levels.**	
Mitigation Measures	**BR-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily. Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer). Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads. Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days. All ground-disturbing activities with potential to generate dust shall be suspended w hen winds exceed 20 miles per hour, as directed by the NCUAQMD. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added. Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged.	**BR-1a:** The BOR shall include provisions in the construction bid documents that the contractor shall implement a dust control program to limit fugitive dust and PM_{10} emissions. The dust control program may include, but not be limited, to the following elements, as appropriate: Water inactive construction sites at least twice daily. Pursuant to *California Vehicle Code* (Section 23114), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer). Excavation activities and other soil-disturbing activities shall be conducted in phases to reduce the amount of bare soil exposed at any one time. When operations are completed in an area, revegetation shall be initiated within 30 days. If an area is closed to operations during the dry season revegetation efforts may be postponed until the first rain to assure revegetation success. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Sweep roads daily (with water sweepers) if visible soil material is carried onto adjacent public roads. Apply nontoxic soil stabilizers according to manufacturer's specifications to all inactive construction areas (i.e., previously graded areas inactive for ten or more days. All ground-disturbing activities with potential to generate dust shall be suspended when winds exceed 20 miles per hour, as directed by the NCUAQMD. Exposed stockpiles of soil and other backfill material shall be enclosed or covered, and watered twice daily or have soil binders added. Any topsoil which is removed for the construction operation shall be stored on-site in piles not to exceed four feet in height. These topsoil piles shall be clearly marked and flagged.

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
	Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.	Topsoil piles which will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture. Soil piles shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall also be planted with a non-persistent erosion control seed mix unless they are to be immediately used. Maximum height for non-topsoil soil stockpiles shall be four feet to allow development of microorganisms prior to resoiling of the construction area. Equipment and manual watering would be conducted on all stockpiles, dirt/ gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. The contractor or agency would designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. The person would also respond to citizen complaints.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.12-2	**Construction activities associated with the proposed Project could result in an increase in construction vehicle exhaust emissions.**	
Mitigation Measures	**BR-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).	**BR-2a:** The BOR shall include provisions in the construction bid documents that the contractors comply with NCUAQMD *Rule 420*. This compliance could occur through the use of portable internal combustion engines registered and certified under the state portable equipment regulation (*Health & Safety Code* 41750 through 41755).
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.13 ENVIRONMENTAL JUSTICE		
Impact 3.13-1	**Implementation of the proposed Project could adversely affect a minority or low-income population and/or community.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
3.14 AESTHETICS		
Impact 3.14-1	**Construction of the new bridge structures for the proposed Project could result in the degradation and/or obstruction of a scenic view from key viewing areas.**	
Mitigation Measures	**BR-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure BR-3a through BR-3d (Replacement of Riparian Vegetation).	**BR-1a:** The following mitigation measures from Section 3.7 (Vegetation, Wildlife, and Wetlands) shall be fully implemented: Mitigation Measure BR-3a through BR-3d (Replacement of Riparian Vegetation).
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.14-2	**Construction of the new bridge structures for the proposed Project could be substantially out of character or disharmonious with existing land uses and aesthetic features.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.14-3	**The proposed Project may be inconsistent with federal and/or state Wild and Scenic River Act requirements.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.14-4	**The proposed Project may potentially generate increased daytime glare and/or nighttime lighting.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
3.15 HAZARDOUS MATERIALS		
Impact 3.15-1	**Construction of the proposed Project may expose potentially hazardous materials that could pose a public hazard.**	
Mitigation Measures	Contaminated Soils **BR-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **BR-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **BR-1c:** The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **BR-1d:** Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **BR-1e:** None of the metal portions of the bridge should be sawed, burned, or sanded and, based on their condition, shall be disposed of in a properly-licensed landfill. Total Recoverable Petroleum Hydrocarbons **BR-1f:** All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility.	Contaminated Soils **BR-1a:** During preparation of the construction bid documents, the BOR shall include provisions and associated contingency budget for containment, avoidance, and/or disposal of contaminated soil that may be encountered during the course of construction. The budget contingency shall account for the following: containment costs; excavation and disposal costs; overnight laboratory testing; importation of clean backfill material; and stand-by time for the construction contractor. Lead-Based Paint **BR-1b:** The contractor will be required to submit a Demolition Plan for approval by the BOR. The plan will specify the removal techniques and containment system(s) to be used to prevent lead paint from entering the Trinity River. **BR-1c:** The contractor will be alerted to the presence of lead paint on the structure and in the soils beneath. The contractor will comply with all applicable worker safety practices required by the OSHA and the Cal-OSHA related to lead paint (i.e., 8 CCR 1532, Lead in Construction). The contractor will advise all workers of the presence of lead paint, and instruct them to wash hands after contact with painted surfaces and soils beneath the bridge, before eating, drinking, or smoking. **BR-1d:** Prior to demolition and or reuse of the bridge, a licensed lead-based paint removal contractor shall be retained to remove any lead-based paint that is chipping or peeling from the bridge. This lead waste (paint chips, dust) shall be tested in accordance with Title 22 waste characterization requirements. Based on the results of these tests, the waste should be disposed of properly. **BR-1e:** None of the metal portions of the bridge should be sawed, burned, or sanded and, based on their condition, shall be disposed of in a properly-licensed landfill. Total Recoverable Petroleum Hydrocarbons **BR-1f:** All asphalt and tar waste generated during construction shall be removed from the project site and recycled at an approved facility.

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	**Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)**
	BR-1g: All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: The TCLP Fish Bioassay Testing Semi-volatile Organic Compounds (EPA Method 8270)	**BR-1g:** All treated wood (i.e., bridge timbers) and associated waste shall be disposed of at an appropriate landfill pending the results of one or more of the following analytical tests: The TCLP Fish Bioassay Testing Semi-volatile Organic Compounds (EPA Method 8270)
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.15-2	**Construction of the proposed Project may increase the potential of public health or safety hazards due to increased risk of upset.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.15-3	**Implementation of the proposed Project may interfere with emergency response/evacuation plans by temporarily slowing traffic flow during the construction phase.**	
Mitigation Measures	Since no significant impact w as identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.16 NOISE		
Impact 3.16-1	**Construction activities associated with the proposed Project would result in temporary noise impacts to nearby sensitive receptors.**	
Mitigation Measures	**BR-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County). **BR–1b:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **BR–1c:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).	**BR-1a:** Construction activities near residential areas would be scheduled between 7:00 AM and 7:00 PM, Monday through Saturday, or other hours and days as established by the local jurisdiction (e.g., Trinity County). **BR–1b:** The BOR shall require in construction specifications that the contractor maintain all construction equipment with manufacturer's specified noise muffling devices. **BR–1c:** The BOR shall require in construction specifications that the contractor place all stationary noise generating equipment as far away as feasibly possible from sensitive noise receptions or in an orientation minimizing noise impacts (i.e., behind existing barriers, storage piles, unused equipment).

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Level of Significance After Mitigation	Less than Significant	Less than Significant
3.17 PUBLIC SERVICES AND UTILITIES / ENERGY		
Impact 3.17-1	**Implementation of the proposed Project could potentially disrupt an existing domestic water supply during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-2	**Implementation of the proposed Project could potentially disrupt an existing domestic sewer/septic system during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-3	**Implementation of the proposed Project could potentially disrupt existing electrical service during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-4	**Implementation of the proposed Project could potentially disrupt telephone service during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-5	**Construction of the proposed Project could result in the generation of increased solid waste.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.17-6	**Implementation of the proposed Project may result in decreased emergency response time during construction.**	
Mitigation Measures	**BR-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **BR-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.	**BR-6a:** The BOR shall stipulate in the contract specifications for construction that the contractor must stage construction work and temporary closures in a manner that will allow for emergency service provider access. **BR-6b:** The BOR shall stipulate in the contract specifications that the contractor must provide 72-hour notice to the local emergency providers (i.e., TCSD, CDF, LCSD, Trinity Life Support Ambulance, and STAR) prior to the start of temporary closures.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.17-7	**Construction of the proposed Project could potentially result in a disruption to school bus routes or student travel routes during the construction phase.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.17-8	**Construction of the proposed Project could result in a substantial use of nonrenewable energy resources.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
3.18 TRANSPORTATION / TRAFFIC CIRCULATION		
Impact 3.18-1	**Construction of the proposed Project would reduce/close existing traffic lanes.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.18-2	**Construction of the proposed Project would generate short-term increases in vehicle trips.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.18-3	**Construction of the proposed Project would obstruct access to adjacent land uses.**	
Mitigation Measures	**BR-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **BR-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.	**BR-3a** Construction bid documents will require that access be maintained throughout the construction period for all private residences adjacent to the Project. **BR-3b** During the construction phase of the Project, BOR shall limit the amount of daily construction equipment traffic by staging most construction equipment and vehicles on the Project site at the end of each work day.
Level of Significance After Mitigation	Less than Significant	Less than Significant
Impact 3.18-4	**Construction of the proposed Project would increase local roadway wear-and-tear.**	
Mitigation Measures	**BR-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Biggers and Steel Bridge Road that will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **BR-4b** A post-construction survey of Bigger and Steel Bridge Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.	**BR-4a** The BOR shall include provisions in the contract specifications that require the construction contractor to perform a pre-construction survey with Trinity County Department of Transportation officials to determine the existing roadway conditions of Biggers and Steel Bridge Road that will be used as a construction haul route. An agreement would be entered into prior to construction that would detail the pre-construction conditions and post-construction requirements for potential roadway rehabilitation. **BR-4b** A post-construction survey of Bigger and Steel Bridge Road shall be performed with Trinity County Department of Transportation officials to determine if any damage has occurred during construction. If necessary, the BOR shall require the contractor to conduct the required roadway rehabilitation identified in the mutual agreement between the BOR and Trinity County Department of Transportation.
Level of Significance After Mitigation	Less than Significant	Less than Significant

TABLE ES-4
SUMMARY OF IMPACTS AND MITIGATION MEASURES – BIGGERS ROAD

	Proposed Action (Replacement Upstream with a Two Span Steel Truss Structure)	Alternative 1 (Replacement Upstream with a Raised Two Span Steel Truss Structure)
Impact 3.18-5	**Construction of the proposed Project could result in the loss of available public parking.**	
Mitigation Measures	Since no significant impact was identified for this alternative, no mitigation is required.	Since no significant impact was identified for this alternative, no mitigation is required.
Level of Significance After Mitigation	N/A	N/A
Impact 3.18-6	**Construction of the proposed Project could pose a safety hazard to motorists, bicyclists, and pedestrians.**	
Mitigation Measures	**BR-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.	**BR-6a** The BOR shall include provisions in the contract specifications that require the construction contractor prepare and implement a traffic control plan that would include: provision and maintenance of temporary access through the construction zone, reduction of speed limits though the construction zone, signage and appropriate traffic control devices, illumination during hours of darkness or limited visibility, use of safety clothing/vests to ensure visibility of construction workers by motorists, and fencing as appropriate to separate pedestrians and bicyclists from construction activities.
Level of Significance After Mitigation	Less than Significant	Less than Significant

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